...AL ROOM
...L LIB...
...Y M...

Volume XXXII OCT 20 1924 Number 5

The Journal OF Political Economy

PUBLISHED BY THE UNIVERSITY OF CHICAGO

OCTOBER 1924

The Economic Future of Our Agriculture	*C. L. Holmes*	505
The Federal Reserve Bank Note	*E. E. Cummins*	526
Rate Regulation and Fair Return	*C. O. Ruggles*	543
European Currencies and the Gold Standard	*Marcus Nadler*	567
An Experiment in Teaching Method	*Edward A. Duddy*	582
The Single-Tax Complex Analyzed	*Willford I. King*	604
Book Reviews and Notices		613

BURR'S *Rural Organization* (Duddy), 613.—WALLACE'S *The Trend of History. Origins of Twentieth Century Problems* (Schevill), 615.—MACDONALD'S *Federal Subsidies to the States: A Study in American Administration* (Viner), 617.—COPLEY'S *Frederick W. Taylor, Father of Scientific Management* (Atkins), 618.—BERGENGREN'S *Co-operative Banking* (Warne), 619.—CABLE'S *The Bank of the State of Missouri* (Reed), 620.

THE UNIVERSITY OF CHICAGO PRESS
CHICAGO, ILLINOIS, U.S.A.

THE CAMBRIDGE UNIVERSITY PRESS, LONDON
THE MARUZEN-KABUSHIKI-KAISHA, TOKYO, OSAKA, KYOTO, FUKUOKA, SENDAI
THE MISSION BOOK COMPANY, SHANGHAI

October 1924 Vol. XXXII, No. 5

The Journal of Political Economy

EDITED BY THE DEPARTMENT OF POLITICAL ECONOMY OF THE UNIVERSITY OF CHICAGO

The Journal of Political Economy is published bi-monthly, by the University of Chicago at the University of Chicago Press, 5750 Ellis Avenue, Chicago, Illinois. The subscription price is $4.00 per year; the price of single copies is 75 cents. Orders for service of less than a half-year will be charged at the single-copy rate. ¶ Postage is prepaid by the publishers on all orders from the United States, Mexico, Cuba, Porto Rico, Panama Canal Zone, Republic of Panama, Dominican Republic, El Salvador, Argentina, Bolivia, Brazil, Colombia, Costa Rica, Ecuador, Guatemala, Honduras, Nicaragua, Peru, Hawaiian Islands, Philippine Islands, Guam, Samoan Islands, and Spain. ¶ Postage is charged extra as follows: for Canada, 25 cents on annual subscriptions (total $4.25); on single copies 4 cents (total 79 cents); for all other countries in the Postal Union, 35 cents on annual subscriptions (total $4.35), on single copies 6 cents (total 81 cents). ¶ Patrons are requested to make all remittances payable to the University of Chicago Press in postal or express money orders or bank drafts.

The following are authorized to quote the prices indicated:

For the British Empire: The Cambridge University Press, Fetter Lane, London, E.C. 4, England. Yearly subscriptions, including postage, £1 4*s.* each; single copies, including postage, 4*s.* 6*d.* each.

For Japan and Korea: The Maruzen-Kabushiki-Kaisha, 11 to 15 Nibonbashi Tori Sanchome, Tokyo, Japan. Yearly subscriptions, including postage, Yen 9.15; single copies, including postage, Yen 1.70.

For China: The Mission Book Company, 13 North Szechuen Road, Shanghai. Yearly subscriptions, $4.00; single copies, 75 cents, or their equivalents in Chinese money. Postage, extra on yearly subscriptions 35 cents, on single copies 6 cents.

Claims for missing numbers should be made within the month following the regular month of publication. The publishers expect to supply missing numbers free only when losses have been sustained in transit and when the reserve stock will permit.

Business Correspondence should be addressed to The University of Chicago Press, Chicago, Ill.

Communications for the editors and manuscripts should be addressed to the Editors of THE JOURNAL OF POLITICAL ECONOMY, The University of Chicago, Chicago, Ill.

Entered as second-class matter, January 16, 1893, at the Post-office at Chicago, Illinois, under the Act of March 3, 1879.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized on July 15, 1918.

PRINTED IN THE U.S.A.

No. 5

y

Uni-
year;
ingle-
Cuba,
livia,
hilip-
a, 25
coun-
(total
Press

land.
ch.

ome,
tage,

crip-
early

pub-
ed in

RNAL

9.
ed on

THE JOURNAL
OF
POLITICAL ECONOMY

VOLUME 32 *October 1924* NUMBER 5

THE ECONOMIC FUTURE OF OUR AGRICULTURE

In considering the great volume of discussion of the recent crisis in our agriculture one is struck by the fact that almost all of it has been from the point of view of the immediate situation and but little has been said of the long-time aspects of the problem. It is rather surprising also that so much reliance, apparently, has been placed, both by the popular mind and by the supposedly more thoughtful leaders, in such immediately applicable palliatives as more and cheaper credit, lower freight rates, reforms in marketing, co-operative action, and tariff protection. It is true that the situation demanded immediate action and some of the measures may have been justified by the degree of temporary relief they are affording; but it is very evident that the ills of agriculture are the result of more far-reaching and more permanent causes than those to which they have usually been attributed and that genuine relief from them must be sought through means quite different from those so urgently demanded by the farmer's numerous voluntary spokesmen.

An analysis of the present agricultural situation, and causes which have operated and are still operating to bring it about, seems to justify the conclusions; first, that the present depressed condition of our agriculture is due primarily to certain more or

less permanent results of the world-war, first, in the direction of expanding our agricultural output and, second, of impairing our foreign market for agricultural products and of redirecting the currents and changing the content of our international trade; second, that the recovery of our agricultural industry depends upon the adjustment of our agricultural production, both qualitatively and quantitatively, to the domestic market; and third, that the result of these necessary adjustments will be the beginning of a new era in American farming, representing as profound a change as that which came with the shift from self-sufficing to commercial agriculture which took place during the second half of the nineteenth century. It is to a consideration of these longer time aspects of our agrarian problems that the following discussion is directed.

THE AGRICULTURAL DEPRESSION

The immediate causes of the farmer's distress are to be found primarily in the unfavorable alignment of prices as between agricultural products and those of the other industries; and secondarily in the heavy burden of fixed charges, a large portion of which were assumed during his recent prosperous years, of which for the most part, he is unable to rid himself. The maladjustment of agricultural prices to those of other commodities may be judged from current index numbers. There is available no adequate quantitative measure of changes in fixed charges.

The most obvious effect of the war on American agriculture was to stimulate production and to expand the industry. A comparison of the census figures of 1910 with those of 1920 shows that there was an increase of 45,000,000 acres, or almost 15 per cent, in the cropped area of the country. The data of the United States Department of Agriculture indicate that the major portion of this expansion came during the war years as a direct result of the stimulus coming from war demand. While there was a vast area of new land added to the farming area of the country during the ten years, most of this was along the margins of our well-developed agricultural areas and remained raw prairie or stump land. In very large measure this expansion in the cropped area took place

in the older agricultural sections and represented the shifting of land already in farms from a less intensive use in pasture to a more intensive use in crop production. The effect of this increase in acreage was to increase the volume of production and in this the result was augmented by a succession of seasons unusually favorable to high yields which still further raised the output above the normal volume. At the same time there was a very substantial though less conspicuous increase in the production of livestock, particularly of swine and beef cattle.

It is significant at this point to contrast the nature and effects of the war stimulus on manufacturing and agriculture. During the first two years of the conflict the attention of our industrialists was being more and more turned to the profitable business of supplying munitions of war to the belligerents. With our entrance in 1917 our own government became the most active buyer of these goods, contracting for vast quantities on liberal terms, thus diverting in the largest measure possible the activities of our manufacturers from normal lines into special and temporary fields of production. This situation worked to the economic advantage of the industrialists in two respects; first, it enabled them to make the necessary expansion in full knowledge of the temporary character of the production and to bargain with the government in the drafting of contracts on the basis of short-time utilization of their fixed capital. Moreover, the contracts secured from the government enabled them to gauge output exactly and to be sure of disposing of their product at a predetermined price. In the second place, this diverting of production from normal lines served to reduce the stock of goods ordinarily demanded to an extremely small volume so that with the close of the war and the relaxation of enforced economics, the consuming public was most insistently demanding goods of which the shelves and storehouses were practically empty.[1]

[1] It is noteworthy that such basic industrial commodities as steel and copper which were not all contracted for, but whose production was pushed vigorously during the war, constitute an exception to this rule. At the close of the war there were considerable stocks of these materials and their prices lagged behind those of most manufactured commodities until the end of the period of depression.

In contrast to the condition in manufacturing we find that patriotism and the war demand called for substantially the same products from the farmer that he was accustomed to produce; but they were wanted in much larger volume. It was inevitable that there should be a piling up of stocks of his products when the abnormal demand should have passed. Moreover, with the exception of the guaranteed wheat price of 1919, there was nothing analogous to the government contract to take this surplus off his hands at a remunerative figure and there were no alternative lines of production to which he could turn and find for his products a crowd of eager buyers.

There is little doubt, also, that in the demoralization of the European market American agriculture is relatively a heavier loser than American industry. Historically our agriculture has been built up on the basis of the disposal of the surplus of its production over domestic needs to the industrial population of Western Europe. It is true, also, that non-agricultural products made up fully half the value of our exports at that time; but our chief market for these things was not found in the belligerent countries. Further, the war and the new tariff have combined more nearly to monopolize the home market for manufactured goods in the hands of domestic producers than to work any similar benefit for agriculture.

The question may well be asked why, in the face of falling demand and such decidedly unfavorable exchange ratios between the products of agriculture and those of other industries, does the volume of agriculture production remain so large? For it must be admitted that in the three years following the crisis of 1920 the total crop acreage showed a reduction of a bare two per cent over that of 1919 and the production of live stock actually increased. The reason is to be found in the inelastic nature of the agricultural industry. This inelasticity prevents such rapid and great expansion in times of rising price as is typical of other industries, but its more conspicuous effect is to prevent a prompt and substantial contraction of output when changing economic conditions would seem to make such contraction imperative.

There are three outstanding reasons for this inelasticity. First, a very high percentage, comparatively, of the total investment in the farm business is in land and fixed capital, making for a high proportion of fixed expenses. In businesses such as merchandising and manufacture where the major portion of the yearly outlay is for labor and raw material, a curtailment in production works something like a proportional curtailment in costs; but in farming where probably not less than 60 per cent of the annual production costs represent interest and depreciation on fixed assets, 25 per cent the imputed wages of the farmer and the members of his family, and only 15 per cent the wages of hired labor and other direct cash outlay, curtailment of production brings so little savings on variable expenses and sacrifices the use of so large an amount of undisposable resources that contraction of production is in most cases economically impossible.

The second cause of the inelasticity of agriculture is to be found in the inertia of the agricultural population. It will be said that reduction in output under adverse price conditions will be brought about by a shift of a portion of the working population from farming into more profitable fields of effort sufficient to re-establish the equilibrium. There is undoubtedly a certain amount of this movement in any period of agricultural depression and in the long run it is of vital importance in economic adjustment. The trouble with its serving as a means of adjustment in an emergency such as the present is that it acts so very slowly. Farming is both an occupation and a mode of living. There is such an intimate connection between the business and the personal and family life of the farm population, the home is so integral a part of the productive plant, and the productive operations so large a part of the home environment, that a decision to abandon farming for an industrial job involves far more than purely economic considerations.

A third reason why the agriculture output is not reduced in response to a price reduction is the large measure of self-sufficiency which still characterizes farming in spite of the commercialization which our agriculture has undergone. On the great majority of American farms from one-third to two-thirds of the

food supply is raised on the farm. Shelter, and frequently fuel, is a contribution of the farm plant. In periods of depression when unemployment appears in all fields of production, farmers are loth to leave a situation which offers the certainty of even a meager satisfaction of their wants for the uncertainty of an industrial position where the loss of a job means entire cessation of income. Thus in the fall of 1922, when Iowa agriculture had just experienced its two most disastrous seasons of a generation, there was a brisk demand for farms to rent.

But little further need be said about the present state of our agriculture. Investigations show quite consistently that not only have our farmers been forced to lower standards of consumption but that there is a noticeable, and in some regions an alarming, dissipation of their business capital quite aside from whatever shrinkage there may have been in the value of farm land. This wasting of capital is manifested in failure to replace equipment and make normal repairs and replacement of buildings, fences, and other farm improvements.

FOREIGN TRADE AND AMERICAN AGRICULTURE

As stated above, American agriculture grew to its present proportions under conditions of dependence on the foreign market for the disposal of a large proportion of its production. This exportable surplus of agricultural commodities has been made up for the most part of pork products, wheat, and cotton. Just before the world-war, we were exporting, according to the average figures for 1907–13 inclusive, about 12 per cent of our pork and lard, 20 per cent of our wheat, and 66 per cent of our cotton. During the war years, 1914–18, these surpluses amounted to 14.5 per cent of our pork and lard, 29 per cent of our wheat, and 48 per cent of our cotton. From 1919 to 1921, representing post-war conditions, these percentages were 18, 34, and 55 respectively. As compared with this very considerable exportable surplus of wheat, corn, and pork, we find that our production of beef, dairy products, fruit, and feed crops was very little larger than enough to supply our domestic demand. Prior to the war we were

exporting about 2 per cent of our beef. During the war this rose to 4 per cent, and has since dropped back to 3 per cent. Our dairy exportation during the last twenty years would hardly counterbalance our imports. We find in general that the agricultural commodities, whose production is practically limited to the home demand, have suffered the least in price declines while the prices of those of which we normally have such a large exportable surplus, and whose production was expanded by the war, have for the most part declined sharply. Wheat and pork are outstanding examples of this latter class.

A considerable amount of misapprehension seems to have arisen over the fact that the physical volume of our exports have been maintained at such a high level since the war closed. It is argued that the foreign situation can have nothing to do with the present low purchasing power of farm products, inasmuch as we have been sending to Europe shipments of pork, lard, and wheat far in excess of our normal shipments before the war, and even during the conflict. The fallacy in this argument, of course, arises from neglecting to consider the effect of this increased supply and the decreased purchasing power of the European people upon prices. It is clear that with our enormous production and the hopelessness of storing the surplus for higher prices, we were willing to dump it upon the European market for what it would bring. The fact that Europe has been taking our products at bargain prices in no way negatives the fact that she is a less eager bidder for our commodities than before the war. Europe has been able to absorb a larger amount of these things than usual, first, because her production of the same commodities was curtailed by the devastation wrought by the war, and, second, because they were cheap. It is also to be remembered that the demand for our products which has existed in Europe almost to the present time was supported by the large volume of loans extended from this country both by our government and on private account. The period of European borrowing to finance food importation has passed. There seems also to have been a considerable degree of rehabilitation of European agriculture. It

is significant that the huge trade balances of the years just following the war have disappeared, and that for 1923 it reached the low figure of $79,370,000.

The probably permanent nature of the new foreign market situation is perhaps not sufficiently appreciated. We are accustomed to think of Europe's low purchasing power as being due entirely to economic exhaustion and political chaos. Too little attention has been directed to the long-time effects of the developments brought by the war. The most significant and permanent of these is the reversal of the debt balance between the United States and Europe.

It is a well-known fact that prior to the war, we had a very large so-called favorable balance of trade. Including merchandise and silver, this excess of exports over imports as given by Vanderlip and Williams, amounted to an annual average for the period 1896–1914, of $552,800,000.[1] This sum was offset, of course, by the so-called invisible items of our foreign trade, estimated as follows: net interest payment on borrowed capital, $160,000,000; expenditures of American tourists abroad, $170,000,000; remittances of immigrants in this country to friends and relations abroad, $150,000,000; net charges on ocean freight, $33,700,000; insurance and other minor items, $30,000,000; importation of gold $9,200,000. For the five years ending June 30, 1914, the average balance of trade was $572,000,000, with a corresponding increase in the invisible items.

A nation may have an excess of imports over exports either because it is borrowing heavily and receiving the proceeds of its loans—as is normal—in goods, or because other nations have borrowed from it in the past to so large a volume that the interest payments—also normally in goods—exceed its current lendings. Or, conversely, an excess of exports over imports might be due

[1] "*The Future of Our Foreign Trade*," *Review of Economic Statistics*, II (1920), Supplement, 1–28. Figures here given on our international trade and capital balances are practically all taken from a series of articles in the *Review of Statistics*, by Williams and others, as follows: II, 215–66, "The Balance of the Trade of United States"; II, *op. cit.*; III, 109–212, "The Balance of International Payment of the United States for 1920;" IV, 201–14, "The Balance of International Payments for 1921"; and V, 279–91, "The Balance of International Payments for 1922."

either to the loaning of capital abroad or to the paying of interest on capital previously borrowed from foreign countries.

This large pre-war trade balance of ours was the logical concomitant of the conditions of our capital balance. We were deeply in debt and having to pay an appreciable proportion of our annual income to foreign capitalists. However, in spite of our position as debtor, our trade and industry were in a very favorable condition considering the stage of our industrial development. The borrowings of the past had been used productively in the development of our resources and were bringing large returns over the necessary interest payments. American agriculture was in a particularly advantageous position. Much of the proceeds of these loans had been used in providing transportation facilities which made European markets accessible to the American farmer on favorable terms. The receipt of large sums as interest by Western Europe enhanced its purchasing power. Europe's demand for outside goods was primarily for farm products rather than manufactures. The American farmer's prosperity may be said to have been based very largely on this position of our nation in the matter of international trade and capital balances.

What happened to the international capital balance as a result of the war is a familiar story. As early as 1914 American securities began to move out of the hands of European capitalists to finance the unusual war purchases made in America. As the European struggle advanced, loans, both public and private, were resorted to as means of payment for the rapidly rising excess of our exports over imports in the European trade. After our entry into the war in 1917 the large volume of credit extended by our government to the allied governments made possible a continuation of this excess on an even greater scale. For the four years following the armistice a very large, though declining, excess of exports over imports was made possible not only by public borrowing during the first year but through the extension of credit by private American capitalists and exporters to private interests in Europe. This movement went so far as to convert our pre-war net debt of $4,000,000,000 to a credit of almost unbelievable

size. According to the best available figures the net amount of American capital, public and private, now invested in foreign countries is approximately $15,000,000,000. Some small portion of this is invested in Canada and other non-European countries, but the great bulk of it represents credits we have in Europe itself.

We are here interested in this great change in the capital balance with Europe primarily from the point of view of its effect on future trade balances, particularly as they concern our agriculture. It is obvious that if interest on this vast debt to America were being fully paid it would more than counterbalance the invisible terms still remaining against us and thus—barring a substantial expansion in capital loans from this country—reverse our balance of trade. Vanderlip and Williams, writing in 1920,[1] estimated that total American interest receipts from abroad would in 1923 be $740,000,000. This was made at a time when the estimated total debt due America was $12,000,000,000 and was based on the expectation of full interest payment on all inter-allied debts at the contracted rate. Since then the total debt has increased but the expected interest payments are not being made. The English debt has been adjusted to a lower rate, and France and Italy have not yet begun interest payment. It is likely that, with the interest on the private portion of the debt and the $188,000,000 of interest and principal the British have contracted to pay, our total receipts of this sort for 1923 were approximately $460,000,000, or almost enough to counterbalance the invisible items against us, which were estimated by the writers quoted above to reach $480,000,000 in 1923. If Italy and France make settlements similar to that made by England the receipts of the United States on interest and capital account will be increased by approximately $187,000,000, bringing the total to almost $650,000,000. This great sum would cover the invisible debit items against us, including tourists' expenditures, immigrants' remittances, etc., and leave an excess of probably $160,000,000. This must of necessity mean a reversal of our balance of trade in merchandise unless we should greatly increase our current loans to Europe, a development

[1] *Op. cit.*

hardly to be expected. It seems likely that even before interest payments on the part of France and Italy are begun our trade balance may be reversed. The greatly reduced amount of this balance for 1923 is indicative of such a change.

Change in debtor and creditor relations between nations obviously acts as a cause of change in the balance of trade. The necessity of contributing taxes for the payment of interest on the public debt, or remitting directly the interest on private international loans, reduces the purchasing power of the debtor country, thus lowering prices there; while the receipts of interest, either by reducing the amount of taxation when the government receives the payments, or by directly increasing the income of private capitalists, increases purchasing power and raises prices in the creditor country. Thus through the medium of price levels the flow of goods between debtor and creditor countries is automatically adjusted to meet the capital and interest obligations.

But here we need to distinguish between the technical and actual aspects of the situation. Technically the United States has been greatly benefited by this change from a debtor to a creditor status. In the long run this technical advantage will become a very real one. Immediately, however, it is quite otherwise. Coming so swiftly, it has thrown our production and the demand for our products violently out of equilibrium. The lowered purchasing power of Europe has been felt most severely by the American industry which was most dependent on Europe for a market. That industry is agriculture. It seems clear that Europe, from this time on, will seek either a greater and greater degree of self-sufficiency in the way of food products or she will attempt to pay for her current importations in products of her own industry. In view of her interest obligations, as well as the payments of principal, which already England has obligated herself to make, it is clear that her payments to us are likely to equal or even exceed the invisible items of our foreign trade which up to this time have accounted in large measure for our excess of exports, and that we are likely to receive from Western Europe a larger volume of goods than we export.

A great deal of emphasis has been placed by certain people upon the importance to agriculture of our participating in European affairs in order to hasten rehabilitation there. It is doubtless true that the purchasing power of Europe would be in part restored by the settlement of its political and international difficulties. However, if by some magic Europe could arrive at political stability over night, the pre-war opportunity for the disposal of the surplus of our agricultural products would not be restored. The changed debtor-creditor relations already cited would prevent a resumption of the old relations. It is probably true that such conditions would encourage a moderate borrowing policy on the part of Europe for purposes of economic rehabilitation which would mean a minor expansion of trade; but the type of goods needed for rehabilitation would not be primarily agricultural, but would consist very largely of products of our non-agricultural industries. Such a development would lighten somewhat the shock of changed conditions upon our agriculture, but it would not restore it to its pre-war prosperity. However, it seems that we are going to have to wait a considerable period for any such stabilization. Meantime, the industrial and commercial adjustments both in England and America will have followed new lines. It is altogether likely that England will pay her obligations to America by means of such manufactured goods as may flow into the country in spite of the tariff, and that she will continue to take very considerably less than formerly of wheat, meat, and even of our cotton, getting a larger and larger supply of these staples from her own dependencies and from South America and the Orient, countries with which her capital account remains more favorable than with the United States. The same is likely to be true to a lesser extent of France, Germany, and Italy. It is true that one cannot measure the total effect of these changes in terms of the direct trade between any two given countries. Triangular trade relations will be set up, but in view of the situation in the countries which will participate in such trade, it seems clear that the major demand for our products will be in the way of manufactured goods, rather than in the products of our agriculture.

DOMESTIC INDUSTRY AND OUR AGRICULTURE

Thirty years ago American agriculture was suffering from a depression fully as severe as the present one. The relief from that adverse condition came fully as much through the growth of foreign outlets for agricultural products as through the expansion of the home market. If the foregoing analysis is sound, the farmer in his present emergency can depend but little on the restoration and growth of his foreign market. His only alternative source of relief is the growth of the domestic market and an adjustment of his production to its requirements. It is well, therefore, to examine, so far as possible, the conditions affecting the extent and direction of our probable future industrial development. No thoroughgoing examination of these conditions is possible here, but certain broad aspects of the situation and its potentialities may be pointed out. The question has two general aspects: first, have we the financial and technical requirements for a marked expansion in our non-agricultural industrial output; and, second, will adequate market outlets be available to absorb the products of a very greatly expanded American industrial society?

Taking up the first of these aspects, we may note that the first prerequisite of production is financial capital. In order that a people may control the destinies of their economic development they must possess adequate purchasing power by means of which they get and wield control of the technical or physical factors of production. It is important not only to have abundant resources, but to hold the equities in them. The changes cited in the previous section have put the American industrialist in a very favorable position in this regard. Not only does he hold full property rights in his own means of production, but as a result of the war he has accumulated substantial claims on the productive capital of foreign countries. Capital, in the sense of an entrepreneural control fund, was never before so ample in any country.

The next prerequisite is an ample supply of actual capital goods. It seems to be the experience of all new countries that development at first and for a very considerable period must be painfully slow. This is very largely for the reason that the collec-

tive industrial plant is in the process of construction and expansion. Economic production in this period is very largely exploitive. It consists for the most part in appropriating the gifts of nature. However, during this period a productive plant is gradually built up and at length a point is reached where there are sufficient capital goods in existence not only to produce ample consumption goods for current needs but also rapidly to expand the supply of production goods where need arises. The tremendous plant expansion in the war industries in 1917 and 1918 would seem to indicate that American industry has matured to the point where, so far as equipment is concerned, it is capable of almost any rate of expansion which a growing demand for its products may justify.

The third prerequisite of industrial expansion is an adequate supply of raw materials. If these materials can be drawn almost altogether from the domestic natural resources the condition is so much the more favorable. No cataloguing of our own natural resources is necessary or desirable here. In proportion to the probable industrial demands upon them, even under a very substantial expansion, our resources probably far exceed those of any other nation. We are abundantly supplied with water power, fuel, and ores.

Looked at from the standpoint of the immediate present, the supply of labor would seem to be the limiting factor on the production side. We have adopted a rather stringent immigration policy, and probaby but few of us not financially interested in industrial enterprises would like to see this control relaxed. Moreover, population is slow to move from unprofitable agriculture to seemingly more remunerative industrial jobs. Increase in the birth-rate is likewise a rather slow means of increasing our labor force. However, when looked at from a long-time point of view the labor supply will probably increase amply even under present restrictions. The present favorable economic position of American laborers will in the long run both increase the birth-rate[1] and draw men in large numbers from agriculture into indus-

[1] The present ratio between births and deaths makes possible a considerable increase in population.

try. Already tens of thousands of families have abandoned unprofitable agricultural enterprises to join the ranks of the industrial workers. Probably in the future the movement of negroes from southern farms to northern factories will be looked upon as one of the most significant events in economic history. Even under the present immigration restrictions appreciable additions from abroad can be made to our labor population. Under pressure of competition of these new increments of labor supply, if not by means of government control, organized labor may be brought to relax its quasi-monopolistic control of wages, employment, and productive output.

In view of all these conditions it seems self-evident that our non-agricultural industry is capable of indefinite and very rapid expansion should economic conditions furnish a sufficient stimulus. Quite another matter, however, is the problem of a growing market commensurate with an expanding industrial output. The European situation constitutes quite as effective a barrier to trade in the products of industry as in farm products.

Economists long ago pointed out that in reality the demand for goods comes from the production of other goods. In an industrial society in which production is well adjusted, the products of each industrial group constitute that group's purchasing power, to be directed to the absorption of the products of all the other groups. In the present world-situation the question of whether an expanding American industry can find an adequate outlet for its products very largely hinges on the adequacy of the market it can create for itself; for the home market must for a considerable time at least, be the main dependence. In other words, can we achieve a fairly high degree of national self-sufficiency? Can we, within our own country, maintain a reasonably broad range of consumption and a rational standard of living and at the same time realize an economic utilization of our resources? Whether we can do these things depends on the fundamental prerequisites just discussed, namely, the volume of our accumulated capital, the degree of our technical efficiency, and the volume and range of our natural resources. As already pointed out, our capital supply is ample and our technique is probably as high as that of

any other people. In the abundance and variety of our natural resources, we have a distinct advantage over other industrial nations, such as England, for example, whose limited area and lack of raw materials make impossible any considerable industrial expansion without dependence on foreign markets. We should, therefore, be able to achieve a very high degree of national self-sufficiency and sacrifice but little of all that constitutes a highly developed economic life.

However, we cannot expect, nor do we desire, to be wholly self-sufficing. Trade with Europe will continue though at a slackened pace. However, a more important foreign market for our industrial products is likely to develop in another quarter. The newer countries of the world, in both the Eastern and the Western Hemisphere, together with the ancient countries just awakening to new economic and social life, are now in various stages of development of their natural resources corresponding to that of our own country of twenty-five, fifty, or even a hundred years ago. They are borrowing countries. They, like America, in the recent past, have been drawing on Western Europe for their supplies of capital. Largely as a result of the war the United States finds itself in a position to become a lending nation. The loans it will be called upon to make will be used for the industrial upbuilding of these foreign countries and, like all such loans, will take the form of concrete capital goods. Thus American industry, by supplying South America, Africa, China, and Russia with rails, locomotives, structural steel, and farm implements, will, by its own growth, increase the domestic demand for our own agricultural products. It seems probable that not until such growth is realized will our agriculture experience again the prosperous condition that it enjoyed before the Great War. And though this new foreign trade is likely to bring into competition with the American farmer the agriculturists of these countries still in the agricultural stage, it is likely to be in the production of world-staples rather than in the products of such specialized agriculture as tends to be induced by a large industrial population.

OUR CHANGING AGRICULTURE

We have seen how the war has thrown out of adjustment the demand for and the supply of our agricultural products, partly by a substantial expansion in our production, and partly through an apparently permanent curtailment of foreign demand for our agricultural commodities. It has also been pointed out that the restoration of prosperity to our agricultural classes depends primarily upon an expansion of our industrial population and the growth of the home market to a degree which will re-establish an economic equilibrium between agricultural prices and those of other commodities. We have still to examine the problem of how our agriculture should be adjusted to meet this changed situation.

This problem has not only its present, but also its long-time phase. Too many of the recently proposed measures of relief have been conceived, apparently, on the assumption that we must save our agriculture as it is today or as it was at the end of 1918. The idea that a new market situation such as we have to face will necessitate a very greatly modified agriculture has not been given any very careful consideration. It would seem that our problem at the present is not to determine how we can again make our farmers prosperous while following a production program adjusted to a particular type of world-economy which no longer exists. It is rather to extend what relief is made necessary on account of the hardships inseparable from an economic change so sudden and extreme as that which we are experiencing, and to facilitate in every way possible the adjustment to the new situation. Such a problem is the more difficult because the new situation is still a changing one.

The first step in the needed adjustment to meet the present phase of the situation is obviously a substantial reduction in those lines of farm production in which the greatest surplus over home-demand now exists. As already mentioned, cotton, wheat, and pork are the three commodities in which we have a large exportable surplus. Our production of cotton has fallen so far below pre-war volume, and there is such a limited output of it from other parts of the world, that it is, for the present, in a very

strong position. The products in which there is unmistakable overproduction are wheat and pork. On the basis of the present rate of domestic consumption it would require an increase in our population of fifteen millions to absorb our present pork surplus and of some thirty-six millions to use all of our exportable wheat.

It has been argued in some quarters that since a substantial growth in our industrial population seems inevitable, we will, in the course of a decade or two, be needing all of this surplus. Why, then, should we suffer the great economic loss incident to a temporary curtailment in these lines and the additional expense involved in a subsequent re-expansion? It is true that in the agricultural industry the breaking up of business units does impose grievous losses on the owners of these businesses and that in the aggregate these losses amount to a heavy social loss. But an unbalanced production program also involves serious losses for many individual producers unless society subsidizes them; and in any case there is a heavy social loss. Society cannot long afford to subsidize maladjusted production, particularly since subsidy tends always to aggravate rather than diminish the maladjustment. Provided we are sure we are going to want the same production program after our population growth has been realized, it becomes a matter of choice and judgment as to whether temporary subsidy, or intelligently guided adjustment and readjustment, involves the smaller loss.

However, we cannot be at all sure that when we reach a sufficiently broad home-demand to absorb a volume of the great exportable staples equal to what we are now producing, the production of this volume will then be the best use to which we may put our agricultural resources. Inevitably, with a growing population, the demand for perishables and semi-perishables—to the importation of which transportation costs, time, and distance impose an appreciably effective barrier—will increase sufficiently to make them successful competitors for a great deal of the land and labor now devoted to the production of staples. Doubtless a great deal of additional land fairly well suited to such production may be brought into use; but such additions must overcome the resistance of reclamation costs, and there is always

the important factor of the localization of production of such commodities relative to the consuming centers. It is altogether to be expected that with further growth of industrialism, great industrial centers will develop in and near our leading agricultural areas. This will come from an effort to utilize most economically stores of raw material and power resources. It is inconceivable that this will happen without profound changes in the agriculture of these areas. The type of farming in the Corn Belt, the Wheat Belt, and even in the Cotton Belt, must undergo radical changes as a result of industrial development. Departure from the one crop system is even now appearing in our spring wheat region; there is a significant invasion of the Corn Belt by dairying; farmers of the South are learning that they can profitably substitute other crops for some of the accustomed cotton acreage. Assuredly our plans for remedying the present ills of the farmer cannot be built upon the assumption of an unchanged agriculture and the permanence of the present production program.

To those of us who subscribe to the necessity of a reduction in the volume of some of our more important staples, the immediate question is the method by which this reduction may best be realized. There has developed recently a considerable sentiment toward a policy of restriction in production on the part of all of the producers of a given commodity such as hogs, for example, sufficient to raise the price to a point which will give them maximum total value for the whole produced supply. The example of certain highly centralized industries such as steel is cited to show the folly of unrestricted or maximum production and the wisdom of controlled production. It seems to the writer that such a suggestion fails to take account of fundamental differences in the two fields of production. So far as he can see there are only two situations under which restriction of output can work successfully for the producer. The one is where the proportion of variable to fixed costs of production is so high that the savings from cessation of production outweigh, under certain cost and price conditions, the savings in fixed costs realized by continued operation. This exists in some freely competitive industries where the chief costs are labor and raw material. The other is where monopoly

exists. In the case of most agricultural commodities neither of these conditions obtains. As already pointed out, a very high proportion of the farmer's costs are fixed rather than variable. He must, therefore, adhere strictly to the principle of maximum utilization of his resources and any effort to induce him to produce less of a given commodity whose price is sagging is futile unless there is presented to him at the same time an alternative line of production which promises a higher utilization of his cost elements.

As for monopoly, the futility of any effort to get unity of action and control with reference to a commodity so widely produced and in whose production so many individual entrepreneurs are engaged as is true of our important staples, ought to be apparent. Except in limited fields and for very short periods, the farmer has never been and cannot hope to be a monopolist.

In the light of these limitations characteristic of agriculture, it seems fairly certain that curtailment of production in the present crisis must come primarily through a process of substituting in the farmer's production program those products whose prices are higher for those whose prices are disastrously low. This is the normal process of economic adjustment and the one which, in the long run, involves the least cost to the individual and to society.

There is always the danger in this process that reactions will go too far and that the prices of one commodity after another may be depressed to a point of unprofitable production. The individual producer needs ever to be alert to avoid penalties of unwarranted and extreme changes. It is undoubtedly impossible by this or any other method in a brief period to restore to a full measure of prosperity those now engaged in farming. There must be, for some time to come, a general drawing in of the margins of production in many lines and particularly in those in which depression is now most marked. This will mean the abandonment to less intensive uses of a considerable portion of the poorest land now in use. Such abandonment is already in process. It is taking place most conspicuously in the poorer areas of the country, but even in our better farming areas an

occasional farm poorly improved and of poor quality has dropped out of use. The labor thus released from agriculture is finding its way into more favorable economic opportunities in the industries.

It is by this same process of seeking the best opportunity for the utilization of resources that our agriculture will expand once more when the market broadens to require a larger and larger agricultural output. A normal growth stimulated by the demands of a growing industrial population will, it is reasonable to suppose, give us a healthier and more efficient agriculture of the future than could possibly result from an attempt to carry over intact into the new era the present system. Adjustment to a changed order of things must come sooner or later. It is probably wise not to try to impede the adjustment.

To those who would say that the present crisis is so grave as to demand something more than a passive attitude toward the normal economic processes of adjustment, it may be replied that the foregoing analysis does not point toward a policy of inactivity and indifference. The emergency truly is great enough to demand the best thought and effort of our agricultural leadership. Probably no previous period has presented so great a need as the present for the best effort of educators, legislators, and the leaders of the farmers' movement toward making general an intelligent view of the real nature of the situation, toward making as easy as possible the adjustment to the new alignment of forces, and toward developing unity of purpose and concerted action on the part of the agricultural class. There was never so great a need, and probably never so great an opportunity, for the development of a comprehensive and far-reaching agricultural policy.

C. L. HOLMES

IOWA STATE COLLEGE
AMES, IOWA

THE FEDERAL RESERVE BANK NOTE

Federal Reserve bank notes in circulation today amount to only $15,000,000, and these are being retired with great rapidity. Even at its peak Federal Reserve bank-note circulation amounted to only $370,000,000. Yet it may well be worth our while before this short-lived and relatively insignificant form of currency has passed into complete oblivion to give it our consideration, with particular attention to the really significant events and problems in which it has played its minor rôle.

1. RELEVANT PROVISIONS OF THE FEDERAL RESERVE ACT

One of the fundamental purposes of the Federal Reserve Act was to eliminate the bond-secured national bank notes and to replace them with the more elastic Federal Reserve notes. In many cases of currency reform in the United States sudden contraction of the currency has been carefully guarded against, in some cases even at the expense of too much expansion. This particular reform was no exception. When the Federal Reserve Act was passed the national bank notes constituted a very large part of the circulating media. The total volume of money in circulation in the United States on June 30, 1914, was $3,402,000,000,[1] of which $750,000,000[2] circulated in the form of national bank notes. It was feared that a sudden withdrawal of any large part of the notes would cause a sudden contraction of the currency with all its resulting evils. To prevent this contraction the Act provided for the issuance of Federal Reserve bank notes, simply to take the place of the retired national bank notes in the transition from the national bank notes to the Federal Reserve notes.

The national banks have been required to carry 2 per cent bonds as security for their notes. Without the circulating

[1] *Treasury Annual Reports, 1914, Finance*, p. 242.

[2] *Ibid.*, p. 385.

privilege these bonds would be worth much less than par in the investment market. To give the national banks an opportunity to sell them at par the Federal Reserve Act provided for their purchase by the Federal Reserve banks.

From the date two years after the passage of the Act, and during the twenty years thereafter, a member bank desiring to retire the whole or a part of its circulating notes has the privilege of requesting the treasurer of the United States to sell for its account at par and accrued interest the United States bonds securing circulation to be retired. The treasurer must file such requests with the Federal Reserve Board and the board may require the Federal Reserve banks to buy the bonds. Federal Reserve banks, however, cannot be permitted or required to buy an amount to exceed $25,000,000 of such bonds in any one year.[1] The bonds are allotted to the reserve banks in proportion to their capital and surplus.

A Federal Reserve bank may do one of several things with the bonds it has purchased. It may issue notes against them, it may convert the 2 per cent bonds into 3 per cent bonds which do not have the circulating privilege, or it may hold them for purposes of investment—which it is not likely to do—or for emergencies when additional currency is needed.[2]

2. SALE OF BONDS BY BANKS TO FEDERAL RESERVE BANKS

It was expected that national banks would avail themselves of the opportunity to retire their notes by selling bonds at par to the Federal Reserve banks. It was also thought that the removal of the restriction requiring national banks to deposit government bonds upon organization would also stimulate a reduction in the number of national bank notes.

Some newly chartered national banks did refrain from depositing bonds, but with little effect upon national bank circulation. The amount of bonds deposited by newly chartered

[1] All such bonds which have been bought under section 4 of the Act are to be included in this amount.

[2] Federal Reserve Act, section 18.

banks during the year ending October 31, 1913, was $2,748,-848.[1] This amount changed but little during the following years. It increased slightly until in the year ending October 31, 1922, the amount of bonds deposited by new national banks was $4,042,750.[2]

The sale of bonds used for security has not been as rapid as was expected. Sales could not be made until two years after the passage of the Federal Reserve Act, which made the opening date for bond sales December 15, 1915. During the first year the sales amounted to more than they have during any year since. In the year 1916 the Federal Reserve banks actually purchased more than $25,000,000, the amount which Federal Reserve banks may be required to buy in any one year. It was therefore not necessary for the Federal Reserve Board to direct the purchase of bonds.[3] The Reserve banks purchased $56,450,180 of United States bonds during this year—in the open market and from national banks. Of these they sold $13,882,000.[4] During the year 1917 the board required the Federal Reserve banks to purchase from national banks $10,877,-000 worth of bonds. The national banks had asked to sell $13,025,250.[5] During the year 1918 the national banks asked

[1] *Treasury Annual Reports, 1913, Finance*, p. 417. [2] *Ibid.* (1922), p. 785.

[3] *Annual Report of the Federal Reserve Board* (1916), p. 7.

[4] The apparent discrepancy between the purchases made in 1916 and the limit of $25,000,000 placed upon the banks by section 18 of the Federal Reserve Act is explained in the ruling given that year by the counsel for the Federal Reserve Board. This ruling reads in part as follows: "Under paragraph *b* of section 14 of the Reserve Act such banks are authorized to buy and sell bonds in the open market. There is no restriction placed in that section upon the kind or amount of bonds eligible for purchase in that manner. The authority is absolute and unlimited except in so far as the Federal Reserve Board may make restrictions under its powers to regulate such purchases. . . . . It is clear that this $25,000,000 limitation imposed by section 18 refers only to those bonds offered for sale by member banks through the Treasurer and has no effect whatever on the continuing power of the Federal Reserve banks to purchase bonds up to any amount in the open market. The only consideration to be given in this connection to bonds bought in the open market is that they are merely one of the elements in determining the amount of bonds which Federal Reserve banks may be required to buy under section 18. . . . . " *Federal Reserve Bulletin* (June 1, 1915), pp. 99–100.

[5] *Treasury Annual Reports, 1917, Finance*, p. 365.

to sell $12,000,000, but the Federal Reserve Board did not deem it advisable to require the Federal Reserve banks to buy any of these bonds.[1] The board followed the same policy in 1919 when the national banks filed with the treasurer applications to sell $15,125,000 worth of bonds,[2] and again in 1920 and 1921 when the amount of bonds the national banks wanted to sell was materially reduced. In 1920 it was $62,000[3] and in 1921, $325,000.[4] During the year 1922 the national banks filed no applications for sale.[5] During all these years the Federal Reserve banks were making large purchases of bonds in the open market, which explains the Federal Reserve Board's policy in the matter.

3. EFFECT OF THIS SALE UPON NATIONAL BANK CIRCULATION

The resulting effect upon national bank circulation has been negligible. The year 1916, it will be recalled, was marked by the greatest sale of bonds by national banks to Federal Reserve banks. During the year ending October 31, 1916, bond circulation of national banks was reduced from $720,633,061 to $679,650,913, i.e., a reduction of $40,982,148.[6] It remained practically the same during the year 1917, amounting on October 31, 1917, to $676,703,103.[7] Since then there has been but little change. In October, 1922, the amount of United States bonds held by the treasurer as security for national bank circulation was $734,816,300.[8]

The question naturally arises, Why did not the national banks retire their notes with greater rapidity? One of the purposes of the Federal Reserve Act was plainly to retire the bond-secured national bank notes. To date the effect upon

[1] *Ibid.* (1918), p. 555.
[2] *Ibid.* (1919), p. 721.
[3] *Ibid.* (1920), p. 870.
[4] *Ibid.* (1921), p. 545.
[5] *Ibid.* (1922), p. 543.
[6] *Ibid.* (1916), p. 514.
[7] *Ibid.* (1917), p. 609.

[8] Exclusive of any bonds sold to Federal Reserve banks and converted, the amount of bonds available for circulating purposes was reduced $63,945,460 by the redemption of the bonds which fell due August 1, 1918. At the time there was $17,715,220 worth of these bonds securing national bank circulation. (Treasury, *Annual Reports, 1917, Finance*, p. 607.)

their circulation has been negligible. There must still be some advantage to the national banks in note issue.

Though the profit derived from issuing national bank notes is exceedingly small, it undoubtedly has been a factor in the national banks' failure to respond to the retirement provision of the Federal Reserve Act. According to the computation of the treasury department the profit on national bank notes, secured by 2 per cent bonds, during the year 1912 was 1.3 per cent. In 1913 it increased to 1.8 per cent, but fell to 1.7 per cent in 1914. It remained somewhat above 1 per cent until 1920, when it fell to .97 per cent. During the two following years it stayed below 1 per cent, being .976 per cent in 1921 and .802 per cent in 1922.[1] It is plain, then, that the profit from note issue is very small, though of course it is reasonable to believe that it has contributed to the national banks' desire to maintain their note-issue privilege.

Very possibly the national banks find some advantage in the advertising gained by the issue of notes. A certain amount of United States bonds looks well on the balance sheet of the bank, suggesting conservative management and the possession of a reliable secondary reserve. This reason, however, has lost much of its significance since the government has issued bonds bearing higher rates of interest than the 2 per cent bonds, which the national banks have bought in large amounts.

Doubtless one of the strongest reasons for the national banks' reluctance to give up the circulating privilege is custom. The issuance of notes has always been regarded as an important function of banks. A bank deemed it a great advantage to have this privilege. For instance, when the Bank of England was given a virtual monopoly of note issue, it was commonly thought that the Bank had to that extent obtained a monopoly of banking. Throughout the entire history of banking in the United States the right of note-issue has been considered most important. The monopoly of bank note-issue, secured by the national banks soon after the National Banking Act was passed, was thought to have placed national banks, as compared

[1] Compiled from the annual reports of the treasury, 1912–22.

with state banks, in an extremely strategic position. A right which, almost ever since the beginning of banking itself, has been thought to be important—a right which national banks have prized since their beginning—is not going to be given up voluntarily within a few years' time. It is certainly within reason to believe that custom has been a powerful factor in causing national banks to retain their note-issue privilege. They will probably not give up this right until forced to do so by prohibitive legislation.

Another factor, of course, has been the reluctance of the Federal Reserve Board to require the Federal Reserve banks to buy bonds of the national banks. This reluctance is to be explained by the fact that the Federal Reserve banks made large purchases of war bonds.

4. CONVERSION OF BONDS BY FEDERAL RESERVE BANKS

The Federal Reserve banks did not, to any great extent, take advantage of their right to convert into 3 per cent bonds, without the circulating privilege, bonds which they had bought either from the national banks or in the open market. Two per cent bonds were purchased by the Federal Reserve banks, under section 4 and section 18 of the Federal Reserve Act, as follows:[1]

In 1914	$ 175,000
In 1915	11,776,350
In 1916	48,128,100
In 1917	13,997,200
Total	$74,076,650

In the year 1916 the secretary of the treasury provided, by ruling, for the conversion of not more than $30,000,000 of 2 per cent bonds into 30-year 3 per cent bonds and 1-year 3 per cent gold notes of the treasury.[2] During that year the full amount was taken by the Federal Reserve banks.[3] During

[1] *Letter No. 3 of Federal Reserve Bank of Richmond*, "Letters to College Classes in Economics and Banking" (February, 1922), p. 20.

[2] *Annual Report of the Federal Reserve Board* (1916), p. 7.

[3] *Ibid.*, p. 8.

the year 1917, $26,256,500 worth of 2 per cent bonds were converted.[1] The Federal Reserve banks received 30-year 3 per cent bonds to the amount of $28,894,500, and 3 per cent 1-year renewable notes to the amount of $27,362,000.[2]

The conversion of bonds was suddenly halted by the Liberty Bond issues. Prior to 1917, when the 3 per cent conversion bonds were selling at a premium, it was profitable for the Federal Reserve banks to buy the 2 per cent bonds at par, convert them into 3 per cent bonds, and sell at a premium. The market for these 3 per cent bonds, however, was destroyed by the $3\frac{1}{2}$ per cent Liberty Bonds, and sales at par were out of the question. The Federal Reserve Board also adopted a policy of holding the 2 per cent bonds with the circulating privilege, so that in an emergency Federal Reserve bank notes could be issued against them. On December 31, 1919, the aggregate holdings of the twelve Federal Reserve banks were $18,600,000 of bonds with the note-issuing privilege, and $6,500,000 of 3 per cent conversion bonds. From the beginning the Federal Reserve Board discouraged the issue of Federal Reserve bank notes upon the bonds, favoring instead the policy of holding them in the vaults for emergency needs.

5. BOND-SECURED CIRCULATION OF FEDERAL RESERVE BANKS

Under the provision of the Federal Reserve Act permitting them to issue notes on 2 per cent bonds, the Federal Reserve banks had issued up to December 31, 1916, but $12,054,980.[3] This is a relatively small amount compared with the total amount of money in circulation on that date, something over four billions.[4] The bond-secured circulation changed relatively little during the next few years. The amount of bonds held by the United States treasurer as security for Federal Reserve bank notes on June 30, 1922, was $10,218,700.[5] During the latter part of

[1] *Annual Report of the Federal Reserve Board*, (1917), p. 124.

[2] *Letter No. 3 of Federal Reserve Bank of Richmond*, "Letters to College Classes in Economics and Banking" (February, 1922), p. 20.

[3] *Annual Report of the Federal Reserve Board* (1916), p. 8.

[4] *Treasury Annual Reports, 1917, Finance*, p. 370. [5] *Ibid.* (1922), p. 784.

1922 and up to the present time in 1924 the Federal Reserve banks have adopted the policy of rapidly retiring their bond-secured circulation, largely by the deposit of lawful money. On October 24, 1923, the bond-secured circulation amounted to approximately $529,000. The liability for all these notes was against the Federal Reserve Bank of Dallas.[1] On October 1, however, the total Federal Reserve bank-note circulation was $16,501,159.[2] The latter amount includes those notes secured by bonds and those secured by lawful money deposited with the treasurer of the United States for the retirement of such notes. Since then the entire bond-secured circulation has been retired.

6. THE PITTMAN ACT AND THE FEDERAL RESERVE BANK NOTES

In 1918 an entirely new situation arose, one that had not been anticipated.

With the year 1916 the price of silver began to take an upward trend, rising rapidly during the year. From 48½ cents per fine ounce in August, 1915, it had by September, 1917, jumped to $1.18 per fine ounce.[3] The rise was largely caused by the general deflation of gold. There was, however, a tremendous shortage of silver on the world-market, due chiefly to the war demands for hard money in Europe, the breaking down of silver mining in Mexico on account of the revolution, and large demand on the part of the allied nations for silver to meet the Oriental trade balances, particularly with India. India was providing war supplies on a large scale for the allies and demanded payment in precious metals. The belligerent countries did not want to give up their gold. As a result, there were signs of an impending financial panic in India.

To meet this situation the Pittman Act was passed on April 23, 1918. The act authorized the secretary of the treasury to reduce and sell as bullion silver dollars up to $350,000,000 and to retire the silver certificates outstanding against the silver dollars. It authorized him to sell the silver thus obtained at

[1] *Federal Reserve Bulletin* (November 1923), p. 1231. [2] *Ibid.*, p. 1243.

[3] *Commercial and Financial Chronicle*, CVI[2] (April 13, 1918), 1514.

a minimum price of $1 per fine ounce; to make contracts with producers of silver to buy at a price of $1 per fine ounce enough silver from the product of American mines to replace that melted and sold untii the whole amount was restored. The evident purpose of the Act was to supply silver in large quantities to meet the immediate abnormal needs and later restore the treasury stock to its original amount, with no permanent change in the currency system.

A large volume of the silver certificates consisted of $1 and $2 bills. These small denominations are of course almost indispensable to our currency system. To prevent a dearth in the supply of these denominations, and to prevent a contraction of the currency, the Pittman Act further provided that the Federal Reserve Board might permit or require the Federal Reserve banks to issue Federal Reserve bank notes, in any denomination authorized by the Board, in amounts equal to the silver melted and sold. Security for these notes was provided for as follows: The issuing Federal Reserve banks were required to deposit with the treasurer either certificates of indebtedness acquired under the Act, or one-year gold notes, of which $19,150,000 was owned by the Federal Reserve banks at the time the Act was passed.[1]

The tax on the Federal Reserve bank notes issued under the provision of this Act was to be so adjusted that the net return on the certificates and the gold notes would equal the net return on the United States bonds used to secure Federal Reserve bank notes. In every other respect these notes were similar to those provided by the Federal Reserve Act.

The effects of the Pittman Act were immediate. The Federal Reserve Board sent an appeal to the Federal Reserve banks, each of which in turn asked for the co-operation of the member banks. These banks were asked to send in as rapidly as possible silver certificates, in return for which they were to receive Federal Reserve bank notes. There were some silver dollars in the treasury without certificates against them. These were immediately melted. The reserve banks and member

[1] *Federal Reserve Bulletin* (May 1, 1918), p. 363.

banks responded well, and the process provided for in the Act was soon well under way.

As a result of the act 200,000,000 ounces of silver were sold to the British government. This constituted most of the silver melted under terms of the Pittman Act. In connection with the purchase of the silver Great Britain undertook to provide rupee remittances for the war needs of the United States.[1] By May, 1919, the need for silver in India had been fairly well met, so that the purchases by the government of Great Britain, under the terms of the Pittman Act, ceased. On May 6, 1919, the secretary of the treasury announced that no further sales of silver under the Act were contemplated; and none were made after that date. The total amount of standard silver dollars melted and broken up under the Act up to May 6, 1919, the date of the final transaction, was $260,121,554.[2]

Up to December 31, 1919, $259,375,000 of Federal Reserve bank notes had been issued under the provisions of the Pittman Act.[3] This constituted all that were issued under the Act, none being issued after that date. The total amount of Federal Reserve bank notes increased from the $8,773,000[4] circulating at the time of the passage of the Act to $269,642,800 on October 31, 1919,[5] the peak of Federal Reserve bank-note circulation.

To provide security for the notes issued under the Pittman Act, certificates of indebtedness, commonly called Pittman Act certificates and bearing 2 per cent interest, were issued to the amount of $259,375,000.[6] The whole amount was bought by the Federal Reserve banks and used as security for the bank notes.

Due largely to the general deflation in the early part of 1920 the market price of silver began to fall, and in June of that year when the market price fell below $1 the treasurer began to make

[1] Albert Strauss. *The Federal Reserve System and the Foreign Exchanges* (1921), p. 21.

[2] *Annual Report of the Federal Reserve Board* (1919), p. 46.

[3] *Ibid.*, p. 46.

[4] *Federal Reserve Bulletin* (May 1, 1918), p. 363.

[5] *Report of the Comptroller of the Currency* (1919), I, 134.

[6] *Treasury Annual Reports, 1921, Finance*, p. 893.

the purchases provided for by the Pittman Act. Tenders were made in such amounts that by September, 1923, the repurchase of the 200,000,000 ounces sold under the Pittman Act had been practically completed.[1] The silver was immediately recoined into silver dollars, and silver certificates were issued against them.

At about the same time that the repurchase of silver was begun the government began to retire the special certificates issued to secure the Federal Reserve bank notes. Provision for the retirement of the notes themselves was made by the deposit of lawful money with the treasurer. By February 8, 1921, $5,000,000 worth of certificates had been retired.[2] The process took place at regular intervals until December, 1922, when the last of the special Pittman Act certificates were retired,[3] and the circulating Federal Reserve bank notes once more consisted of bond-secured notes or notes whose retirement had been provided for by the deposit of lawful money.

7. CONCLUSIONS

In drawing our conclusions in regard to the Federal Reserve bank notes we must consider them from two standpoints, namely, their character and their purposes. We must also consider separately the notes issued under the Federal Reserve Act and those issued under the Pittman Act.

It will be recalled that the reserve bank notes issued under the Federal Reserve Act are "to be issued under the same conditions and provisions of law as relate to the issue of the circulating notes of national banks secured by bonds of the United States bearing the circulating privilege, except that the issue of such notes shall not be limited to the capital stock of such Federal Reserve bank." It is not necessary at this point to criticize in detail the character of the Federal Reserve bank notes. They are so nearly like the national bank notes that practically the same faults found with the latter can be found with the Federal

[1] *Federal Reserve Bulletin* (September 1923), p. 1011.

[2] *Ibid.* (April, 1921), p. 374.

[3] *Annual Report of the Federal Reserve Board* (1922), p. 4.

Reserve bank notes. They have the many inherent weaknesses of a bond-secured circulation. The weaknesses of the bond-secured Federal Reserve bank notes do not affect the currency system to the degree that the weaknesses of the national bank notes did before the passage of the Federal Reserve Act. The reason, of course, is that the Federal Reserve bank notes form an exceedingly small part of the present currency system, and the weaknesses are not felt, while the national bank notes before 1913 constituted one of the main parts of the currency system.

The fact that the weaknesses of the Federal Reserve bank notes are not felt does not remove them. The reserve bank notes may perhaps have some advantages over the national bank notes; their issue is more centralized, and the issuing banks are more evenly distributed throughout the country. These advantages, however, are rather negligible when compared with the disadvantages. Considered solely from the standpoint of their character the Federal Reserve bank notes provided for by the Federal Reserve Act have been an unwise addition to our complex system of currency.

The purpose of these notes was obviously to facilitate the transition from the national bank notes to the Federal Reserve notes. In this transition they were to prevent any undue contraction of the currency. Since the possibility of contraction in making this transition was present there was perhaps some justification in providing for these notes. As things actually happened in the functioning of the Federal Reserve act, however, there was no approach to an undue contraction of the currency. The national banks did not withdraw their notes in large numbers and a large volume of Federal Reserve notes were issued. The volume of gold also increased tremendously. But the framers of the Act could not be expected to foresee how things would actually work out.

For purpose of discussion let us suppose that they had worked out differently. Suppose that the national banks had taken advantage of the provision in the law to sell their bonds to the Federal Reserve banks at par, and that as a result national

bank notes had been withdrawn in large numbers. Suppose that the member banks had not taken advantage of the rediscount privileges of the Act. This is a likely supposition as there had never been a rediscount market in the United States, and rediscounting had always been regarded with some disfavor. As a matter of fact, the member banks were very slow to take up the practice of rediscounting commercial paper. With practically no rediscounting, Federal Reserve notes could not have been issued in large numbers with commercial paper as security. Suppose there had been no war. The large mass of government securities which were indirectly used as security for the Federal Reserve notes would not have been available. And, finally, suppose the volume of gold had decreased instead of increased. In the circumstances practically the only security that could have been used for reserve notes was gold, and the use of gold as security would not have meant an expansion of the currency. With the suppositions we have made—and back in 1913 when the Act was passed they were all possible—there certainly would have been an undue contraction of the currency. Hence, there seems to have been some justification for putting the provision into the Act.

The next question is, granting that there was some justification for putting the provision into the Act, was there any justification for taking advantage of the provision by actually issuing Federal Reserve bank notes? As has already been indicated, the national banks did not retire their notes in any large amounts, and the volume of bond-secured national bank notes remained practically the same. The Federal Reserve banks did issue a large number of Federal Reserve notes; $544,000,000 were in circulation in June, 1917.[1] The volume of gold coin and gold certificates increased from $1,600,000,000 in June, 1913, to $2,400,000,000 in June, 1917.[2] As a result the total volume of currency exclusive of Federal Reserve bank notes increased from $3,700,000,000[3] in June, 1913, to $3,900,000,000[4] in June, 1915; $4,470,000,000[5] in June, 1916; and

[1] *Treasury Annual Reports, 1917, Finance*, p. 369. [2] *Ibid.*, p. 370.

[3] *Treasury Annual Reports 1913, Finance*, p. 214.

[4] *Ibid.* (1915), p. 314. *Ibid.* (1917), p. 369.

$5,300,000,000[1] in June, 1917. Obviously there was no danger of an undue contraction of the currency. On the contrary there was grave danger of extreme expansion of the currency. Yet, during this period of a constantly expanding currency and rising prices, Federal Reserve bank notes, whose main purpose was to prevent dangerous *contraction* of the currency, were issued to the extent of $12,000,000![2] Not a very large figure to be sure, but why issue any? They were an unwise and unnecessary appendage to an already too complex system of currency.

To summarize: In character the Federal Reserve bank notes have practically the same weaknesses as the bond-secured national bank notes. There was perhaps some justification for providing for their issue. Granting this, however, there was absolutely no justification for actually issuing any notes. The Federal Reserve banks should have followed either of two alternative policies; that of converting the 2 per cent bonds into 3 per cent bonds, or that of holding the 2 per cent bonds for a possible emergency in the currency situation. They actually did hold most of the 2 per cents for that purpose, but a better policy would have been to hold *all* the bonds they did not convert into 3 per cents.

In character the Federal Reserve bank notes issued under the Pittman Act were somewhat different from those issued under the Federal Reserve Act. The security for the Pittman Act bank notes was for a period of one year, thus providing automatically for the redemption of the notes. In this case no artificial value was given to long-term bonds. Granting that the issue of the notes was justified, the security provided was well suited for the purpose.

In a critical consideration of the Pittman Act and the resulting bank notes, two provisions of the Act must be distinguished: the one providing for the sale of silver and the one calling for the repurchase of the silver.

The silver situation in 1918 was very critical, particularly in India. The price of silver reached the highest point in generations, furnishing the United States an excellent opportun-

[1] *Ibid.*, p. 369. [2] *Ibid.*, p. 369.

ity to get rid of her undesirable silver, namely, the silver in the silver dollars. For years the United States, a gold standard country, has maintained the silver dollar on a par with gold, even though during most of the time the actual value of the silver dollar has been much below the value of the gold dollar. Moreover, the United States has always suffered from too many kinds of currency. The silver circulating as silver dollars and held in the treasury behind circulating silver certificates has been an unnecessary part of our currency system. In 1918 the allies of the United States needed to have the silver as much as the United States needed to part with it. Reports from London, after the Pittman Act was passed, were unanimous in the opinion that the United States had rendered a great service to her allies. To provide for the sale of silver was not merely justifiable—it was an admirable piece of legislation.

But why, once having got rid of an unnecessary and undesirable part of our currency, did the framers of the Act provide for its repurchase? One class of people, the silver interests, was particularly benefited by this provision. At the time the Act was passed the price of silver was very high. Later it fell until it was well below a dollar an ounce. Yet the government paid a dollar an ounce for the silver purchased from American silver producers to replace that sold under the terms of the Pittman Act. The silver producers sensed the situation in 1918. Professor Willis, formerly secretary of the Federal Reserve Board, holds to the view that the repurchase provision would never have got into the Act had it not been for the pressure brought to bear by the silver interests.[1] It was felt at the time that the support of these people in carrying on the war would be weakened if provision were not made for the repurchase of the silver. And then it is quite possible that the opposition of the silver interests would have been strong enough to prevent the passage of the Act without the repurchase provision. The Federal Reserve Board strongly believed that the silver should have been sold, but that it should not have been repurchased and returned to our currency system.[2] This view is held by most unbiased students of the situation.

[1] Willis, *The Federal Reserve System* (1923), pp. 1256–57. [2] *Ibid.*

Suppose the provision calling for the repurchase of silver had been omitted from the Pittman Act. Should Federal Reserve bank notes then have been issued? The same reasoning holds here as was applied to the reserve bank notes issued under the Federal Reserve Act. In each case the purpose is to prevent undue contraction of the currency. As was shown in considering the bank notes issued under the Reserve Act, the total volume of currency increased from $3,000,000,000 in 1913 to almost $5,000,000,000 in April, 1918, when the Pittman Act was passed. There seemed to be no danger of contraction. Suppose that the total amount of silver dollars that could be withdrawn under the terms of the Pittman Act, namely, $350,000,000, had been withdrawn in one year, and that no Federal Reserve bank notes had been issued; even then the total amount of currency would have increased to $7,200,000,000.[1] Before the Act was passed every indication pointed to a constantly expanding currency. And these indications were later borne out. Had the Pittman Act contained the single provision calling for withdrawal of the silver dollars and silver certificates, there would have been absolutely no need for the actual issuance of Federal Reserve bank notes or for any provision making issuance possible in an emergency.

But the Pittman Act was not passed as it should have been passed. Instead it included the two provisions. As the Act stands, was there a need for Federal Reserve bank notes? The purpose of the notes in this case was not only to prevent unnecessary contraction of the currency at the time of the withdrawal of the silver, but to prevent an undue expansion at the time of the return of the silver to the currency, i.e., to provide for the withdrawal and subsequent return of the silver without any jar to the currency system. In principle this was a wise piece of legislation. But as a matter of fact $350,000,000 formed a relatively small part of the currency, and it is quite possible that such a sum could have been withdrawn at one time and added at another without much disturbance to the currency.

To summarize: had the Pittman Act been passed as it should have been passed, i.e., without the repurchase provision, there

[1] *Treasury Annual Reports 1919, Finance*, p. 724.

would have been absolutely no need for issuing Federal Reserve bank notes or even *providing* for their issue. But as the Pittman Act actually was passed, there was in principle some justification for the issuance of Federal Reserve bank notes, although in the existing circumstances it was probably not necessary.

No great harm has resulted from either issue of Federal Reserve bank notes. Indeed, they have been too insignificant in volume either to help or to harm materially our currency system. The purpose of this paper has not been to prove that the Federal Reserve bank notes produced either good or bad results—for there were none of any great importance—but to learn what we can from our experience with them.

E. E. CUMMINS

PRINCETON UNIVERSITY
PRINCETON, NEW JERSEY

PROBLEMS OF PUBLIC-UTILITY RATE REGULATION AND FAIR RETURN

There has been a tendency in recent years to place a great deal of emphasis on the need of providing a "fair return" to public utilities. This demand has been a natural result of the policy of rate regulation, during the past fifteen years, through which the earnings of public utilities have been limited. It has been said that limitation of earnings carries with it the obligation on the part of regulating bodies of providing rates which will assure public utilities a fair return. Some even go so far as to claim that there should be a guaranteed return. Others contend that while there should be no absolute guaranty of a definite and fixed return, regulating authorities should stand ready to make necessary rate adjustments when the rate of return falls below what is said to be fair.

FAIR RETURN NOT CLEARLY DEFINED

There is no general agreement as to what is meant by fair return, but there appears to be a growing appreciation of the fact that public utilities should be permitted to earn a fair return. It is clear that a fair return would not be the same under all circumstances. Moreover, like a tax rate, the base upon which the return is computed naturally modifies the rate which would be necessary to provide a "fair return." Leaving for later discussion what constitutes a proper base upon which the rate of return should be calculated, consideration may be given, first, to a number of factors which affect the cost of conducting a public utility, or which constitute elements of risk which must be given attention in determining fair return.

Some of these factors are: (1) changes in economic conditions which affect the cost of operation and the rate of interest on capital, (2) the degree to which utility facilities may be duplicated or overbuilt, (3) deficits incurred by the utility in certain years

or unusual earnings enjoyed in others, (4) the character of the service and the efficiency or inefficiency of the management, and finally (5) elements of risk peculiar to the utility or to the conditions under which it operates. Obviously, in no two instances would all these elements be present in the same degree. Each can be given its due weight only after a careful analysis of all the facts and circumstances in each case.

CHANGES IN ECONOMIC CONDITIONS AND RATE OF RETURN

The experience of the recent war has made it easier for the public to understand that changes in economic conditions may make necessary certain readjustments of the rate of return which should be allowed to public utilities. During the war period there was a marked increase in operating costs through increases of wages and increases in the price of coal, oil, and other important materials entering into operating costs. Interest rates also advanced. Regulating bodies therefore allowed rate increases because of these changes in economic conditions.[1]

It ought to be clear to the public that utilities must have good credit in order to borrow money on favorable terms. They cannot sustain their credit unless the rate of return is sufficient to enable them to pay not only interest upon their bonds but also dividends upon reasonable issues of stock. If they are unable to sell stock, there is of course the danger that they will become top heavy with bond issues, thus saddling themselves

[1] In the important Illinois case, concerning the Metropolitan West Side Elevated Railroad Co., in 1921, evidence was presented to show that twenty representative public-service corporations had paid an average interest rate of 5.87 per cent on securities issued by them for the years 1912–13; that the same twenty companies paid an average rate on their security issues for the years 1918–19 of 8.71 per cent, or an average increase in the cost of capital of nearly 50 per cent. (This evidence was presented by Frank K. Shrader, of Halsey Stuart & Co., Chicago, dealers in investment bonds [*Re* Metropolitan West Side Elevated Railroad Co. P.U.R., 1921, B229, 280, 281]). The Illinois Commission had already allowed in cases previous to the one here referred to a rate of return of 7.5 per cent, and it assumed the same return as fair in this case. See *Re* Consolidated Gas & Electric Light & Power Co. (Md.), *ibid.*, D705, 721, 722; *Re* Lewiston Gas Light Co. (Me.), *ibid.*, A561, 568; *Re* Mt. Vernon Water Works Co. (Ind.), *ibid.*, B727; *Re* Western States Gas & Electric Co. (Cal.), *ibid.*, B419; *Public Service Commission* v. *Pacific Power & Light Co.* (Wash.), *ibid.*, A590.

with very heavy fixed charges which prove embarrassing even for a public utility during times of depression.

What has just been said is not to be construed as any argument for a fair return based upon the amount of securities which a public utility might have outstanding. The obligation upon governing bodies to assist in the maintenance of the credit of public utilities is vital to the public itself in that extensions of service ought to be made as the community's needs expand rather than at a time when the utility finds it financially convenient to make such extensions. It is clear, too, that if a public utility is forced to a hand-to-mouth policy of short-term borrowing the public must pay for the extravagance which such procedure entails. It would appear, then, that the public must accept the theory that there should be an adjustment of a so-called fair return in accordance with ups and downs in the rate of interest which the utilities find it necessary to pay for capital.

DEGREE TO WHICH UTILITY FACILITIES ARE DUPLICATED OR OVERBUILT

The problem of the duplication of public-utility facilities and of the overbuilt plant present some difficulties in determining a fair return. Duplication of utility plants has resulted, in part, from our theory that competition among utilities was desirable. The overbuilding of plants, on the other hand, could occur under a theory of monopoly. If a public utility had the exclusive right to furnish service to a community, it might consciously or unconsciously provide facilities far in advance of any probable needs. It might consciously carry out such a program because it feared potential competition and desired to pre-empt the field; it might err in calculating the rate at which the community would absorb its service or in gauging the community's growth and development.

In the early development of utilities, duplication of plant facilities was very common with electric light, street railway, and telephone companies. The overbuilt plant has been a rather conspicuous feature in some of our far-western states.

In that section water-plants have been developed both in connection with irrigation and with domestic supply. The Idaho Commission has held in one case that rates on an overbuilt plant should not be allowed inasmuch as the plant had been built far in advance of needs, and that, therefore, the utility would need to look to the future for returns.[1] A number of similar cases have come before other far-western Commissions. In some instances, water systems in the West have been developed along with land sales projects. Obviously, in such instances the territory served would not have reached its normal development. The California Commission has held in such a case that a fair return could not be expected on the cost of the entire system. In one instance, a California company increased its hydroelectric capacity in one installation by 65 per cent and its total plant capacity by approximately 45 per cent. The commission held in this case that a "full return" could not be expected on all its additions immediately.[2]

In recent years, with the tendency toward consolidation of utilities, the very practical question has arisen as to the extent to which duplicated facilities are to be included in the base on which a return is to be allowed. One view is to the effect that the public should be willing to allow a rate of return on the total value of such facilities because duplication of our public-utility facilities took place with the sanction of public authority. While there may be some basis for this view, adoption of this theory would place upon the public the burden of underwriting all sorts of speculation by public-utility promoters. It would be an indorsement by the public of the judgment or lack of judgment of utility promoters in their mad race of competition. Some plants were not expected to be profitable; they were built with the sole intention of forcing competitors to purchase them in order to escape the risk of a disastrous rate-war. The New Jersey Commission in a recent case held that the rate allowed to

[1] *Re* Campbell Bros. Water Co., *ibid.*, C330.

[2] *Re* Great Western Power Co., *ibid.*, E198, 208. For other California cases involving this principle see *Re* Centerville Water Co., *ibid.*, C518. *Re* Los Altos Water Co., *ibid.*, D535. *Re* Crystal Springs Water Co., *ibid.*, B414. *Re* Puente City Water Co., *ibid.*, C451.

an interurban railway company was not as high as the valuation of its property might justify if it were operating in a non-competitive field; that since this company entered into a field which it knew was being covered by another traction company, the public must not be asked to pay rates on the duplicate investment. In an early case involving an overbuilt plant, the United States Supreme Court said:

> If a plant is built, as probably this was, for a greater area than it finds itself able to supply, or, apart from that, if it does not, as yet, have the customers contemplated, neither justice nor the Constitution requires that, say, two-thirds of the contemplated number should pay a full return.[1]

It would appear that duplication of facilities should not be treated in any different manner, in determining the amount upon which fair return should be allowed, than should be followed in dealing with the overbuilt plant. Both involve judgment of public-utility promoters, and if they make mistakes in providing facilities far in excess of a community's needs they ought to be responsible for their errors.

But while the public cannot be expected to pay for mistakes in judgment on the part of utilities in building utility plants ahead of needs, a reasonable position should be taken by public-utility commissions toward the allowance of a return on facilities which may be necessary for emergencies. The public is much more dependent upon public-utility service now than it was a decade ago. Few large cities could survive for many hours a breakdown in the service of light and power. As the writer has pointed out elsewhere,[2] we can lessen very materially the investment necessary to provide "stand-by-plant" for light and power in our large centers of population by interconnection of the light-and-power systems serving our large cities. Thus Cleveland could be served in emergencies by Detroit and by Chicago. By thus linking together various cities throughout the country, enormous savings could be made. Our regulation, therefore, should not only permit interconnection but should encourage them and in some instances even require them to be made.

[1] *San Diego Land and Town Co.* v. *Jasper*, 189 U.S., 439, 446 (1903).

[2] "Problems in the Development of a Superpower System," *Harvard Business Review*, January, 1924.

SIGNIFICANCE OF DEFICITS OR UNUSUAL EARNINGS

Very closely related to the problem of the overbuilt plant is that of deficits incurred or unusual earnings made during certain years. A deficit sometimes occurs in the early stages of a public utility's business. Such deficits may be due to the fact that the plant had been overbuilt, but such deficits could also be due to the fact that people had not become accustomed to the service of the utility. Its managers may have entered into the business conscious that the enterprise would not produce earnings at the outset and with the belief that they would be able to retain a sufficient margin of profit in later years to recoup their early losses. No discussion will be attempted within the limits of this article of the subject of "going value." Attention is here directed to a public utility which is established as a going concern, its development costs having been disposed of. How is a fair return to be computed in the case of such a public utility which, because of reasons that for the moment will be assumed to be beyond the control of prudent management, has had several years of adversity or on the contrary several years of unusual prosperity? In other words, upon what period of time is a fair return to be computed, and to what extent shall fat years and lean years be included in arriving at what is to be considered a fair, average return?

In a recent case the United States Supreme Court has held that if a public utility has enjoyed profits, under rates approved by a commission empowered by law to set rates, these profits are lawfully acquired and need not be considered in calculating an average rate over a period of years to determine whether a rate is confiscatory. The court said:

> Mere past success could not support a demand that it continue to operate at a loss. The public has no such right in respect of private property although dedicated to public use. When it became clear that the prescribed rate had yielded no fair return for more than a year, and that this condition would almost certainly continue for many months, the company was clearly entitled to relief.[1]

But there is nothing in this recent decision of the Supreme Court to prevent direct legislation which would provide for a

[1] *Newton* v. *Consolidated Gas Co.*, 258 U.S. 165.

reasonable balancing of fat and lean years in determining the reasonableness of rates.[1]

> It will seldom be important that rates have been inadequate for a day or a week or a month. Fleeting losses may be suffered, and yet the balance sheet may show a profit. Prolong the loss, however, for a year, and you may reach and cross the danger line. It is by the average of the year that business commonly reckons its losses and its gains. On the other hand, there may be times when the average must be distributed over periods still longer.[2]

It is certainly undesirable to have rate adjustments oftener than is necessary. It would not be wise, for example, to attempt to compute a fair return upon a three-month basis. The Missouri Commission, in passing upon a gas-rate case, has said that a fair return meant a return over a period of years, not every year by itself; that the rate granted might not be sufficient for the ensuing year, but if taken with former years it would be reasonable.[3]

An interesting instance of unusual earnings in one year is seen in a California case. The San Joaquin and Eastern Railroad, which reported a capitalization of a little more than a million dollars, had a net revenue in one year of nearly one-half million dollars. This was because certain construction work in this region gave this road an unusually profitable business. The California Commission made certain deductions because of its unusual earnings, when the property was to be included as a part of the operative investment of the Southern California Edison Company.[4] The Connecticut Commission has taken the position that a public utility which had paid over 13 per cent on its common stock from 1916 to 1920 should show cause why its rates should not be reduced rather than increased.[5] The Michigan Commission has adjusted rates with the understanding that if the rates

[1] This interpretation of the decision has recently been given by Bauer in "Recent Decisions on Valuation and Rate Making," *American Economic Review*, June, 1924.

[2] From the decision of *Municipal Gas Co.* v. *Public Service Commission*, 225 N.Y. 89.

[3] *In re* Oronogo Gas Co., P.U.R., 1921, D535.

[4] See *Re* Southern California Edison Co., *ibid.*, D65, 73.

[5] *Danbury* v. *Danbury & Bethel & Electric Light Co.*, *ibid.*, D193, 203–4.

fixed proved to be too low and the company suffered a loss, the deficit would be made good in later rate adjustment.[1]

If the public attempts to regulate utilities on the theory that they should have a fair return, it would appear that deficits and unusual earnings must to some extent be taken into consideration in determining what constitutes a fair return; provided, of course, that the regulating authority has comprehensive information on which it can base its judgment. The public protested against rate advances granted to utilities during and following the recent war. It was said that utilities should share in reduced profits along with other lines of business. Such argument overlooks the fact that during the early years of the war other lines of business had the opportunity to accumulate a surplus on which they could draw when price recession set in and they found earnings falling. Many businesses could have been carried on under the falling prices following the war at an actual loss without being forced into bankruptcy, because they had a shock absorber in the form of a surplus which they were able to secure in the prosperous years. But utilities usually have little or no opportunity during years of prosperity to advance the price of their products in order to provide a fund which may be drawn upon during years of adverse business conditions.

In line with the United States Supreme Court decision cited above, some of our states have laws which prohibit commissions from considering past deficits in determining a rate schedule. Such legislation is unsound. Some of these laws also provide for a fair rate of return. It is clear that the theories of these laws are inconsistent. There can be no fair return that does not give some consideration to deficits and to unusual earnings. Some of our state commissions are recognizing this theory, and are putting it into practice.[2] The public ought to indorse their

[1] *Re* Michigan State Telephone, *ibid.*, C545, 565, and *Re* Lansing Fuel & Gas Co., *ibid.*, C465, 482. The Nebraska Commission has said that it may take notice of the effect of past rates in a rate case. *Re* Stanton Independent Telephone Co., *ibid.*, D240, 247.

[2] The California Commission in a recent case maintained that because utilities were held down to a return in 1918 that was barely sufficient to insure the continuance of adequate service, while at that time business in general was making big

action. This question is of more importance now than it was a decade ago. Many utilities have grown beyond the stage of supplying domestic service, and now find themselves tied up with industry. Some of our utilities, therefore, have very expensive facilities the use of which and the return on which is much affected by the ups and downs of the business cycle.[1]

CHARACTER OF SERVICE AND EFFICIENCY OF MANAGEMENT

Rate regulation of both railroads and other public utilities has been more generally applied and more readily accepted as proper than has regulation looking toward supervision of either service or management.[2]

The attempt on the part of commissions to gauge the rate of return which a public utility should have by the character of its service or the efficiency of its management is viewed by some with much apprehension. It is said that such a policy is an unwarranted interference with management, and that such attempts, therefore, are likely to do much more harm than good. It is contended that the management of our public utilities must not be hampered if it is to attain the best results; that the interference by regulating bodies with actual operation of utilities will stifle initiative and retard many improvements in the public-utility field that might otherwise be realized. The Court of Appeals of New York said soon after that state had committed itself to a comprehensive program of commission regulation: "We do not think the legislation alluded to was designed to

---

profits, they were entitled during the years of falling prices to receive a reasonable return irrespective of the conditions of business as a whole (see *In re* Pacific Gas & Electric Co., *ibid.*, D533). The Nebraska Commission said in 1921 that a street railway unable to build up a surplus during the war as did other industries should not be required to operate on an insufficient revenue until, owing to a general decline in prices, conditions improved (*Re* Lincoln Traction Co., *ibid.*, B157). See other Nebraska cases: *Re* Northwestern Bell Telephone Co., *ibid.*, E120, and *Re* Nebraska Telephone Co., *ibid.*, A378. See a North Dakota case, *Re* Northern States Power Co., Minot Division, *ibid.*, A121, and a Maryland case, *Re* Consolidated Gas & Electric Light & Power Co., *ibid.*, D705.

[1] See "Problems in the Development of a Superpower System," by the writer, in *Harvard Business Review*, January, 1924.

[2] See "Railway Service and Regulation," by the writer, *Quarterly Journal of Economics*, November, 1918.

make the commissioners the financial managers of the corporation or that it empowered them to substitute their judgment for that of the directors or stockholders of the corporation."[1] More recently the Illinois Supreme Court has maintained that a commission cannot substitute its discretion for that of the officers with respect to matters of business management.[2]

While there is truth in the contention that it would be a mistake to substitute the judgment of public-utility commissioners for that of boards of directors and active managers of public-utility companies, it by no means follows that commissions may not take cognizance of the character of the service rendered by a utility or of inefficiency in its management. It is plain that intelligent and effective supervision of the service or of the management of public utilities could not have been possible until there had been added to public-utility commissions, as a more or less permanent staff, experts in engineering and other lines, who are capable of setting equitable standards of service and of detecting certain inefficiencies in management. But the services of an expert are not necessary to detect many inefficiencies in service which in turn may reflect poor management. Poor pressure for water or for gas is quickly discovered by the public itself. It takes no expert to detect unsatisfactory telephone service. The same is true of street-railway service or interurban-railway service when the schedule of trains is very irregular and the line is in such physical condition that it is positively dangerous to ride over it. Even most blind persons are able to detect intermittent electric-light service.

But consciousness of poor service does not automatically provide better standards. While poor water pressure or poor gas pressure is easily detected by the general public, the services of experts are necessary to determine the cause and to set up certain standards with which a public utility can be expected to comply. Water, gas, and electric-light and power systems normally have some loss in the delivery of their products or

[1] *People* v. *Stevens*, 197 N.Y. 1, 90 N.E. 60.

[2] *State Public Utility Commission Ex. Rel. Springfield* v. *Springfield Gas & Electric Co.*, 291 Ill. 209, 125 N.E. 891, P.U.R., 1920, C640.

services to their customers, but if a gas company, for example, has a leakage of 25 per cent, there is doubtless something wrong with its management. Just what leakage should be considered normal under all circumstances in a given case would be for a commission's experts to determine. As has been pointed out in a previous article,[1] the manner in which a management may insist on constructing its rate schedules will also show its lack of skill or its unwillingness to conform to definitely recognized standards.

What some of our commissions have done in recent years in the regulation of public-utility service is of interest. In a case where the Kansas Industrial Court[2] set certain standards of leakage in a natural-gas system, the utility complained that such action was an invasion of the company's right to manage its own affairs, but the United States District Court ruled otherwise and sustained the right of the Industrial Court to set such a standard.[3] A more drastic method of meeting the situation has been to reduce rates to correspond with the character of the service. This would mean, for instance, that a gas company would be required to accept a reduction in its rates until it had improved its service. The United States Supreme Court has upheld a public-utility commission which required a gas company to make a rebate to consumers because of poor service.[4]

Also rate advances have sometimes been refused because the utility had not kept its accounts in an intelligent manner or in accordance with law. This has been particularly true in recent years of auto-bus companies, some of which have not discovered that they are engaged in a public-utility business. As inter-utility relationships become more complex, the public interest demands that the accounts between parent- or holding companies and local distributing companies be made in an honest and intel-

[1] "Discrimination in Public-Utility Rates," *Journal of Political Economy*, March, 1924.

[2] When the Kansas Industrial Court was established it was given, for a time, control over public utilities.

[3] *Landon* v. *Court of Industrial Relations*, 269 Fed. 433, 438.

[4] *Oklahoma Natural Gas Co.* v. *Oklahoma*, 258 U.S. 234.

ligible manner. If the transactions between parent- and subsidiary companies and valuation accounts are not made a wide-open book, it may become necessary for utility accounts to be rigidly inspected at frequent intervals or possibly kept by government employees themselves.

There would be nothing in such a plan that would interfere with efficiency in management. To use the language of Justice Hughes in the Minnesota rate cases: "The appraisement is of an instrument of public service, as property, not of the skill of the users."[1] Indeed, if there were less opportunity to make a profit through the working-out of certain valuations or through financial manipulation of accounts, there would need to be more attention given to possible efficiency and economy in operation.

Expensive mistakes in utility management which reasonable intelligence and efficiency could have eliminated should not be charged against the public. Poor coal might be a legitimate excuse for poor or expensive service on the part of a gas company during the years of a war or under certain circumstances at other times, but a chronic substandard and expensive service should not be excused on that account. It might cost an electric utility, in normal times, eighteen cents per kilowat hour to generate electricity, and yet the service might be so intermittent that it would be almost worthless. In other words, there is no reason why the public should be expected to shoulder the burden merely because it might cost a public utility a very high price to furnish a service. If routine matters are to be left to the discretion and judgment of utility management, it must in turn be held responsible for results. Also the high cost of service may be due to the fact that it is applying out-of-date methods to antiquated equipment, and has failed to keep step with the progress of the arts. The public cannot be expected to underwrite negligent and shiftless management which results in inefficiency and waste and in turn may lead to gross overcapitalization, including excessive bond issues. A fair return should not be allowed on any such basis. As Justice Hughes maintained in the Minnesota rate case, the realization of the benefits of

[1] *Simpson* v. *Shepard*, 230 U.S. 352, 458.

property must always depend in large degree on the ability and sagacity of those who employ it.

If regulation is to penalize inefficiency in management, should it also reward efficiency in management? From what has just been said it would appear that the public should not be called upon to pay whatever service may cost regardless of inefficiency in furnishing it. If, on the other hand, a public utility is skilfully managed and succeeds in making what might be considered, under ordinary circumstances, more than a fair return, should it be permitted to keep it? In other words, if a cost-of-service theory of rates is applied and increased costs or decreased costs of operation are to be absorbed by adjustment of rates, will public-utility managers consider that they have nothing to gain if they are efficient and nothing to lose if they are inefficient? With dynamic conditions either the rates or the rate of return must vary. Under the old plan of fixed rates and, what was inevitable, a varying rate of return, public-utility managers felt the responsibility of earning, or at least of securing, a satisfactory rate of return for those who furnished the capital. And without changes in rates it was often necessary for management to reduce standards of service in order to maintain a fairly even rate of return.

Now if we are to operate under a plan which assumes changes in rate schedules in accordance with changes in economic conditions, does the position of the public-utility manager take on a new aspect? Is he now responsible to the public for the kind of record he makes? The public, in the main, is acting upon the theory that there should be a fair rate of return and no more, to capital invested in the public-utility business. And it may be asked whether the public-utility manager is not at least one step removed from what was his former relation to the utility capitalist? It is said that, under the plan which was generally followed for many years, a public-utility manager could be dismissed by those in financial control if he did not make a satisfactory record. If he succeeded they could reward him accordingly. If we are to proceed under the theory that capital in the utility business should have a fair return, must the public have the same control

directly or indirectly over the utility manager that obtained between him and the utility capitalists under the old régime?

If this question is to be answered in the affirmative, how can public control over utility management best be carried out? Or is such a plan an impossible one from the standpoint of the utility manager? Will he have two masters, and, of course, find it impossible to serve them both? With improved accounting control, and more expert assistance for our commissions, it may be possible to detect fraud, but what can be done to encourage utility management to initiate, to economize, to bring about inventions and improvements? What reward can the public offer which will compare with the recognition management received under the old plan when it made as high a rate of return as it could for those whose capital was invested in the business? Under the "fair return" theory are we to assume that the management is to have such a direct relationship with the public that utility managers are to be appointed and removed by governing authorities, or will they be appointed, promoted, or dismissed, as they have been in the past, by those financially interested in the utility?

Morgan contends[1] that some plan must be worked out whereby management may be rewarded directly by governing authorities. He believes it insufficient that they should be rewarded by the slow process of salary increases allowed by the utility companies. Moreover, he sees dangers in the plan of continuing the misplaced emphasis of allowing an increased rate of return *to capital* for efficiency *in management*. He believes the increased income thus allowed to the utilities will be capitalized immediately and that this in turn will eliminate the stimulus to further efficiency on the part of management. He believes such a plan as he proposes is workable inasmuch as capital in the utility business is assuming more and more of the character of an assured investment, and that regulation is to an increasing extent sharing the function of management. It is not within the limits of this article to discuss the merits of Morgan's theory. Briefly, it may be said that it is not probable that the plan which he proposes

[1] *Regulation and Management of Public Utilities* (1922), pp. 314 f.

can be made to work successfully until the public actually does provide an assured return to capital invested in the utility business. As long as we ask capital to accept any risk of a reduced return which might be due to inefficiency in management it will be necessary to let it appoint and promote the management and to share with it any increased rate of return made possible by its efficiency. It will probably be some time before our political theory and practical politics will provide that close relationship between regulation and management which Morgan's thesis demands. Meantime, the very desirable goal which he sets up may be realized to some extent if our regulating bodies will make the efficiency or the inefficiency with which utilities are managed a vital issue. As has been suggested, this can be done intelligently only when the accounts of utilities reflect the whole truth about their business.

Recent cases before various state commissions indicate that they are making a very definite attempt to put into practice the theory that the character of the management should be taken into consideration in fixing the rate of return which a public utility is to be allowed to receive.[1]

In applying the theory that a high rate of return may be enjoyed provided the utility can render service at low rates, care

[1] Some cases in point are: *In re* Union Telephone Co. (Neb.), P.U.R., 1921, C333; *In re* Bell Telephone Co. (Ill.), *loc. cit.; Champaign* v. *Urbana Water Co.* (Ill.), P.U.R., 1919, E798, 825. See, for example, *In re* Princeton Water and Light Co. (Ind.), *ibid.*, 1921, B724. See also *Annual Report of Ohio Public Utility Commission for 1921; Hoffman* v. *Elmira Water, Light & Railway Co.* (N.Y.), P.U.R., 1921, D535; *In re* Noblesville Heat Light & Power Co. (Idaho), *ibid.*, B722. The Massachusetts Commission has frequently expressed the view that the rate of return should not be uniform for all companies, but should be measured in each case by the efficiency of the management and the character of the service, and that a utility rendering excellent service at low rates is entitled to reap the reward of its enterprise by being permitted to earn more than the normal rate of return (see, for example, *Re* Union Street Railway Co., *ibid.*, 1919, D758, 767). The same theory has long been held by the Wisconsin Commission. Soon after the establishment of commission regulation in that state, it was maintained that in fixing rates for public utilities consideration should be given to extraordinary efforts on the part of management and that "an allowance should be made for it in the way of extra profits" (*Hill et al.* v. *Antigo Water Co.*, 3 W.RR. Commission Report 623, 725 ([1909]). See also *In re* Appl. Oconto City Water Supply Co., 7 *ibid.*, 497, 576 (1911); *City of Beloit* v. *Beloit Water, Gas & Electric Co.*, 7 *ibid.*, 187, 285 (1911).

should be exercised to determine whether the low rate is made possible because of the efficiency of the management or because of a strategic position the utility may have in the utilization of natural resources. The management may deserve some reward for having had the vision necessary to make possible the utilization of certain advantages which nature had to offer in a locality, but it is equally true that those who located industries in such a place may have done so with the expectation that they could enjoy some of the economic advantages which the community afforded for industrial development. If efficiency is to be rewarded, it should be segregated so far as it is possible to do so, from other factors, some of which may be wholly fortuitous. If this is not done, rewards and penalties may be completely neutralized, and hence they will fail to produce the desired results.[1]

ELEMENTS OF RISK PECULIAR TO THE UTILITY OR TO THE CONDITIONS UNDER WHICH IT OPERATES

The elements of risk peculiar to the utility itself or to the conditions under which it operates cannot be ignored in fixing the rate of return. If risk could be completely eliminated from the public-utility field, it would be possible to market public-utility securities at a very much lower rate of interest than has actually been possible in the history of these industries. Among the elements of risk in this field may be mentioned: (1) advance in the arts, (2) conditions affecting the source of supply of the product or service, and (3) changes in the community itself.

Improvements and inventions may make certain equipment practically obsolete. Sometimes these changes are almost revolutionary in character, sometimes they are very gradual. It is not always possible to determine whether further investment in certain standard-utility equipment should be made after a new type has appeared on the horizon. The vital question is

[1] For an interesting Wisconsin case in which the commission of that state held that a public utility which possessed an especially economical source of supply was not entitled to retain the entire saving effected by it, but that a portion of the saving should be given to the public in the form of lower rates, see *In re* Service and Rates, Stevens Pt. Ltg. Co., 14 *ibid.*, 350, 363, 364 (1914).

whether the new facilities are a passing fad or whether they have come to stay. For example, in a certain period of the development of the street-railway business, vast sums were invested in cable-car systems on the theory that the trolley car would not be a success. Today this same utility is confronted with the problem whether it should continue to operate on a fixed track or to shift to a trackless car which would give greater flexibility of routes, which is sometimes vital because of unexpected development within a community. Since the final outcome of this problem can be known only with the passing of time, there is a risk which must be confronted by all who provide any kind of street transportation.

Probably the most conspicuous example of a public utility which encounters risk in the conditions affecting the source of supply of its product is that of natural gas. The natural-gas business is somewhat like mining in that it may cease to be profitable within a very short time, and hence it is difficult to determine a proper rate of return which would provide for the amortization of its property. In other words, it is extremely difficult to fix a fair rate of return for such a utility. Experts give certain facts on rock pressure, and while this information may be a rough guide as to the length of time a natural-gas supply will continue, such prophecies cannot be converted into life-tables which will prove to be dependable in all instances. They are at best only estimates. "Nature has not laid her cards on the table face up, and the value of her hand is not seen," and there is a risk because this is true.

Changes which take place within the community itself may be of such a character as to affect the prosperity of a utility. As light and power companies furnish an increasing amount of current for industrial purposes, it may mean marked economies through greater load diversity for some companies, but there will be, in some instances, due to business booms and depressions, an increased risk in their business. This will be especially true of utilities that have comparatively little lighting business and that furnish much power to very large industries highly specialized along some one line. Such industries are sometimes the sole

activity of a community, and they are often of such a character that they are especially hard hit by panics and by long-drawn-out industrial depression. Labor troubles affecting industries in such a locality might produce a similar result.[1]

Sometimes industries in a community depend upon the local natural resources, and when these are exhausted the community loses its population at a very rapid rate. This frequently happens in lumber and mining regions. Railroads and other public utilities that have served such places suddenly find that what had been a very valuable plant has become little more than junk within a very short time.[2] To increase utility rates in such a case to a point that would maintain the rate of return which the utility might properly have been permitted to receive when the community was larger and prosperous would be as impossible as it would be absurd. When a public utility finds itself in a place that has lost most of its population, or in a locality which for some reason finds itself able to dispense with the utility's service, there is no other alternative for the utility than to accept the loss. If proper provision has not been made in the program of regulation in previous years, the utility must suffer very great loss, for little or nothing can be done after the change in the community has occurred.

Regulation of a fair return which does not recognize the element of risk may be as much against the interests of the public as it is against the interests of the utility. For example, if

[1] A good example of this sort is seen in Vermont in the case of the Montpelier and Barre Light & Power Co. This company furnished power to carry on quarrying and manufacturing business in the so-called Barre district. Because of labor troubles business was practically suspended in that area for a period of about ten weeks, thus causing a rapid and substantial falling-off of the business of the public utility serving the community. See *Jones* v. *Montpelier & Barre Light & Power Co.*, P.U.R., 1921, D145, 149. See also *Electrical World*, July 5, 1924, where tables and charts are given, showing "Material Decreases in Industrial Power Requirements." The table shows a falling-off of 7.5 per cent during the first four months of 1924, but statements are made that the falling-off in the demand for power was much more marked in the industrial areas. See also Vanderblue and Crum, "Relation of the Public Utility to the Business Cycle," *Harvard Business Review*, July, 1924.

[2] Leadville, Colorado, for example, one of the oldest mining towns in that state, had a population in 1880 of about 16,500. In 1920 it had less than 5,000 inhabitants.

nothing has been done in the accumulation of a proper reserve for a natural-gas utility, either because it has been permitted to pay out too much in dividends or because it has not been allowed adequate rates, it will be extremely difficult, if not impossible, to work out a satisfactory solution in the last few years during which natural gas is available. To ask for a rate of return that would provide for the amortization of its plant during the few remaining years of a rapidly diminishing natural-gas supply would mean too great an increase in rates. In spite of the inconvenience that consumers would suffer, they would probably discontinue service to such an extent that the public utility would gain nothing by the increased rates. Regulation and public-utility management are jointly responsible to the public in such a case for having accumulated a reserve which will have been invested in facilities that will enable the utility to furnish artificial gas when the natural-gas supply is exhausted. Telephone companies that have not made proper financial provisions for the shift from a manual to an automatic system are likely to be slow in making the change, and the public in some instances will not have the better service as soon as they otherwise would. The effect upon the public in all such cases is the same, whether the utility's inability to introduce the improved service is its own fault or is the fault of the regulating authorities.

THE BASE UPON WHICH A FAIR RETURN SHOULD BE ALLOWED

There remains for discussion the proper base upon which a fair return should be computed. Evidently, if the base is made larger than is fair, it will be possible to make the rate of return appear to be very modest. There has been a tendency for our utilities to make the base upon which the rate is to be calculated as large as possible in order to make the rate of return appear to be very low. Obviously, our limitation of rates has, in part, been responsible for this attempt on the part of the utility companies.

A long line of court decisions, from *Smyth* v. *Ames* in 1898 to the recent rulings of the United States Supreme Court, in the Southwestern Bell, Bluefield, and Atlanta cases, shows that the

courts have considered many bases on which rates might be based. But the United States Supreme Court has shown a preference for reproduction cost as the proper base upon which rates and the rate of return should be allowed.

If reproduction cost or present value be taken as the rate base, the utilities would greatly profit by demanding a valuation when prices were high, and the public would benefit by demanding a valuation when prices were low. This would mean that the rate of return would be sent up and down by the swings in the price level, entirely independent of the quality of the service or the character of the management of the utility. It would not appear to be desirable to make the return to a utility very liberal merely because prices were high without any regard to the fact that its service and its management at that very time might be very poor. Moreover, it would be discouraging to an efficient management to have the rate of return reduced merely because the business cycle had brought a marked reduction of prices. This weakness in the present-value theory is always brought strikingly to the fore when prices are either unusually high or unusually low.

The courts have by no means been blind to the fact that private property dedicated to a public use must be submitted to some limitations. From the important decision of the United States Supreme Court in the case of *Munn* v. *Illinois*[1] down to the present time the position has been taken by the courts that private property which has been dedicated to public use is affected with a public interest and as such is subject to certain regulation by the government. But the courts have probably not made adequate modification in the concept of private property when that private property is used for public-utility purposes. Generally speaking, court decisions have emphasized the legal factors involved in valuation cases and have not given sufficient weight to the economic and social considerations. To take value "used and useful" to mean value *at the time* the inquiry is made concerning rates is to follow precisely the same rule which is followed in *private transactions* involving

[1] 94 U.S. 113.

private property. However, there is some indication in recent decisions of the United States Supreme Court that there may be further modification of the concept of the *present value* of private property when that property is dedicated to public use. Valuations have been approved which were much under what a strict calculation upon the prevailing price level would have produced.[1]

If the courts insist on present or reproduction value they will be in line with the concept of *private property*, but this theory will not solve the problems which are vital in regulation of *public utilities*. If we are to have a theory of valuation that may completely neutralize either efficiency or inefficiency in management, our program of regulation will be inconsistent with itself. And it would appear that rewards must be given for efficient management and penalties levied for inefficient management if we are to retain private ownership and operation of public utilities.

The outstanding objections which can be raised against original cost as a proper rate base are, first, that in some instances it cannot be found; and, second, that to allow whatever it might have cost to produce a property would be putting a premium on dishonesty and inefficiency. The objection to investment as the proper basis on the ground that it cannot be determined had much to be said for it before there was any regulation whatever of public-utility accounts, and it is still important in the case of some utilities. However, comprehensive regulation of the accounts of utilities will make this objection less valid in the future. Indeed, it would appear that after the accounts of utilities have been supervised for a sufficient period of time, it will be very much easier to determine investment than it will be to *estimate* reproduction cost or present value.

The second objection to original cost or investment as a proper basis is more vital. Is the public to allow rates on the basis of original cost or investment, regardless of what that cost

[1] For example, in *Galveston Electric Co.* v. *City of Galveston* (1922), 258 U.S. 388; in *Southwestern Bell Telephone Co.* v. *Public Service Commission* (1923), 262 *ibid.*, 276; in *Bluefield Waterworks & Improvement Co.* v. *Public Service Commission of W.Va.* (1923), 262 *ibid.*, 679; and in *Georgia Railway & Power Co.* v. *Railroad Commission of Georgia* (1923), 262 *ibid.*, 625.

may be? Will utility management under such a theory have sufficient interest to keep down the cost of utility plants so long as the public is to allow whatever the actual cost may be? Indeed, will there not be the incentive on the part of utility management to make the cost or investment as high as possible in order to secure a liberal valuation upon which the rate of return is to be allowed?

Some of our leading public-utility commissions, because they have been in the front-line trench of utility regulation, have had a keen appreciation of the significance of the economic factors involved in the choice of a base upon which a fair return is to be allowed. Some of them have shown a tendency to take "prudent investment" as the proper base. This means that they must shoulder the responsibility of determining when utility investments are prudently and honestly made. Possibly some of our commissions are ready to accept this responsibility. Some of them are obtaining an increasing amount of comparative data upon which they can base their conclusions. Utility managers sometimes learn, when they come before a commission in a rate or valuation case, that the commission can give them some very valuable ideas about their own business. Obviously, a commission is in a strategic position to secure a very wide range of information, and with greater accuracy in the accounts of utilities and with the assistance of its staff of engineers and other experts it is probable that it can, to an increasing degree, determine whether investments have been honestly and prudently made. Perfection cannot be expected. In any program of regulation it will be necessary to take the horns with the hide. The plan which will tend to eliminate speculation from the field of public utilities and which will give, on the whole, the greatest incentive to public-utility management, which will put a premium on efficiency and which will eliminate as far as possible all fortuitous factors which in turn may neutralize all efficiency or inefficiency in management, is the plan which should be followed.

The public must stand ready to accept the risk which public utilities now face if they are to insist on a *current rate of interest on prudent investment*. If the public does not desire to accept

the risk involved in the utility business, it must not hold the rate of return down to a current rate of interest on the actual investment. If the utilities continue to assume the risk of their business, they should be permitted to receive something in addition to a current rate of interest on that investment. This policy will enable them to provide for what may turn out to be imprudent investment.[1] Only through a guaranty of a return on prudent investment can the public insist that the utility receive no more than a current return on that basis.

With this allowance of an additional return to compensate for risk, prudent investment will probably prove to be superior to reproduction cost or so-called present value as a base on which a fair return is to be allowed, because it will take utilities, to a greater extent, out of the field of speculation. Centralization in the financing and management of public utilities ought to eliminate much of the risk of the business and make possible the use of facilities in one locality or under one set of conditions that would be obsolete in other communities or under other conditions. Moreover, the centralization of research and investigation on which many improvements hinge, together with sufficient monopoly, will enable utilities to "control the introduction of improvements." These factors will, in turn, lessen the risk of having prudent investment made obsolete until the utilities can absorb the financial shock due to advancement in the arts or to changed conditions. In other words, the variation in value due to obsolescence of utility property will probably be less than the variations produced by changes in the price level from time to time. For this reason, prudent investment will probably gain in favor with both commissions and courts. The recent decisions of the United States Supreme Court, previously mentioned, may be said to lend support to this view.

In conclusion, it may be said that in the making of utility rates increased attention should be given to the rate of return

[1] As Hardy has pointed out, the existence of a "normal rate of interest" presupposes a guaranteed return on capital, and also a guaranty on some capital is impossible unless there is other capital interposed between the capital which is guaranteed and the hazards of the business (*Risk and Risk-Bearing* [1923], p.356).

which a public utility should receive, that due weight must be given to fundamental changes in economic conditions which affect profits or losses of the utility business; that the elements of risk peculiar to the utility or to the conditions under which it operates must not be overlooked; that the efficiency or inefficiency of management should receive consideration; that the base upon which a rate of return is to be computed must not fluctuate in such a manner that speculation is introduced into the utility business, thus neutralizing efforts to reward or penalize management. And finally that utilities must be given a sufficiently liberal return to enable them to meet the hazards of the business, unless the public is willing to guarantee a fair return on prudent investment.

C. O. RUGGLES

OHIO STATE UNIVERSITY

EUROPEAN CURRENCIES AND THE GOLD STANDARD

Attempts at currency reform in a number of countries in Europe indicate the general tendency to return to sounder monetary conditions. The wave of currency inflation which set in at the beginning of the war has passed its crest and its effects have shown that a stable currency is one of the most important postulates of sound economic conditions. All countries of Europe have now recognized the fact that money is the life-blood of any organized society and that the moment this blood is turned into water, paper, industry, trade, and practically every human activity are put in jeopardy. The countries which have suffered most from the flood of currency depreciation have therefore been among the first to attempt a restoration of their currencies.

What are the currency problems which the various European countries face and what methods have been used in the restoration of their currencies? It may be stated at the outset that only few countries are faced with the urgent necessity for currency reform, and countries which have attempted to restore or stabilize their currencies have not adopted a uniform scheme laid down by some international conference. Although the restoration of the currencies in Europe is international in character and of importance to almost all countries of the world, events of the past few years have shown that in each country different means were adopted, best suited to its own needs. However, no matter how different the methods applied were, the general trend was the same and the present—at least preliminary—tendency is not to introduce the gold standard with paper freely redeemable in gold and with free international gold movements, but rather to return to stable currencies having a definite relation to gold.

According to the general course of currency development since the termination of the war, countries in Europe may be divided into three groups:

A. Countries not faced with the necessity of currency reform, whose currencies have more or less depreciated, but which have sufficient gold to return to the gold standard even if their currencies are brought back to their pre-war par of exchange. In this group may be included all the formerly neutral countries and England.

B. Countries with deranged currencies, but where no sweeping reforms are necessary. In these countries notes in circulation have largely increased since the outbreak of war; their exchanges have depreciated, and a return to par is out of question. Representatives of this group are France, Italy, Belgium, etc.

C. Countries which either have effected currency reforms or are faced with the problem of currency reform. In some of these countries the paper notes have depreciated to such an extent that they have ceased to exercise the functions of money. To this group belong Germany, Russia, and some of the newly created or enlarged countries of central and eastern Europe.

First group.—The main problem of the countries of the first group is whether to return to the pre-war par of exchange or to stabilize their exchanges at some lower point. The gold stock held by the respective central banks of issue is large and the ratio between gold and notes outstanding is in many instances larger than before the war, as may be seen from Table I. Regardless of the larger accumulation of gold, the exchanges of some countries belonging to this group, especially those of Norway, Denmark, and Spain, have largely depreciated. A return to par depends largely on the movement of prices at home and to a large extent upon the price level in the United States. The general attitude seems to be to wait until a gradual equalization of prices in the most important countries shall have taken place and to defer any artificial interference with the currency until such time when it may not disturb the economic conditions of the country.

Second group.—Notes in circulation in countries of the second group are the result of war and post-war government finance, and not of present business conditions. They represent a non-interest-bearing debt of the various governments, contracted during or after the war, which the governments are either unable or unwilling to reduce. The amount of notes in circulation shows

TABLE I

RELATION BETWEEN GOLD AND NOTES IN CIRCULATION

	END OF 1913 IN MILLIONS			END OF 1922 IN MILLIONS			END OF 1923 IN MILLIONS		
	Notes in Circulation	Gold Reserve	Ratio of Gold to Notes Per Cent	Notes in Circulation	Gold Reserve	Ratio of Gold to Notes Per Cent	Notes in Circulation	Gold Reserve	Ratio of Gold to Notes Per Cent
Holland (gulden)	313	151	48	1,044	512	49	1,066	582	54.5
Sweden (kronor)	234	102	44	584	274	47	576	274	47.5
Switzerland (franc)	314	170	54	977	535	55	982	537	54.6
England (pound sterling)	34.6	45	128	404.2	154.5	38	427	155	36.2
Spain (pesetas)	1,921	480	24.9	4,137	2,525	61.0	4,338	2,528	58.2
Norway (kroner)	108	44	40.7	395	147	37.2	396	147	37.1
Denmark (kroner)	152	73	48.0	459	228	49.7	473	210	44.3

some fluctuation, but the average amount of notes outstanding has changed comparatively little since 1921. With few exceptions the volume of currencies of the above countries has declined from the peak of 1920, but this decline has been comparatively small and in some countries, as, for instance, in Belgium, the amount of notes in circulation is at present higher than in 1920. The main difference between the first and second groups of countries is that a return to par in the countries of the latter group is impossible, inasmuch as such a return would be dependent upon two factors, namely, (*a*) a decrease in the amount of notes in circulation, and (*b*) a rise in the exchange rate.

A decrease in the amount of notes outstanding cannot take place for the following reasons: In almost all countries of this group notes in circulation are covered mainly by government securities and thus a substantial decrease can take place only when the governments of the respective countries are in a position to reduce their debts, which in practice means not only the

balancing of the budgets, but also the attainment of surpluses with which to repay the old debts. Budgetary deficits of most countries of this group are still large and are met largely by the floating of loans. So long as the finances of the governments are not restored it is not likely that there will be a substantial decrease in the amount of notes in circulation. For, in countries where governments meet their deficits by loans, a decrease in the amount of notes outstanding would have to be effected by an increase to about the same extent of the debts of the government, which would practically mean the conversion of a non-interest-bearing loan into an interest-bearing loan. Thus, even disregarding the disturbing effects of deflation, it is in the interest of the governments not to reduce the amounts of notes in circulation.

The close relation between notes outstanding and government finances can be better understood by a brief survey of the financial situation of the French government. The total internal debt of the French government on December 31, 1923, amounted to about 270,000,000,000 francs. The French government finds it more and more difficult to borrow money, and is forced to increase the interest rate. The last government loan bears interest at the rate of over 7.50 per cent, a fact which indicates the grave financial position of the French government. The huge floating debt of the government is a constant menace to the Bank of France, for the latter is obliged to discount treasury bills running not more than three months. As the total number of these bills of all maturities up to one year is over 50,000,000,000 francs, the total amount maturing in any quarter is about 12,000,000,000, or nearly one-third of the outstanding note circulation. If the holders of these bills suddenly lost confidence in them and attempted to turn them into currency, the bank and the government would be placed in a difficult situation from which they could extricate themselves only by an expansion of the circulation. It is more and more apparent that these bills are no longer as attractive to the French investor as in former years, and it is by no means unthinkable that a sudden unfavorable incident, at home or abroad, might cause a "flight from the franc" which would bring about the situation just mentioned.

There are indications that this was actually occurring in the last half of December, 1923, and in January and February, 1924.[1]

The situation in Italy, Belgium, and in some other countries in the second group is similar to that of France, the difference being more one of degree than of kind.

The same factors which prevent a decrease in the amount of notes in circulation prevent a material rise in the exchange rate. An increase in the external or internal value of the currency would have undesirable effects on the general business condition and on the finances of the government. A substantial increase in the value of the exchanges abroad would be followed by a decrease in prices with all its effects upon industry and trade. But, even assuming that this could be overcome, the main objection to an increase in the value of the exchanges comes from the government. A substantial rise in the exchange rate in most countries of this group would immediately increase the burden of the government, for it would be forced to repay much larger sums than it received in terms of purchasing power. The French internal debt, for instance, increased from 116,874,000,000 francs at the end of 1918 to 254,502,000,000 francs on April 30, 1923, an increase of 137,628,000,000 francs which was contracted in depreciated francs. If the franc were to return to par before this debt is repaid, this would amount to the doubling of the debt. The beneficial effect which a higher exchange rate would have upon the payment of principal and interest on foreign loans is comparatively much smaller. The present attitude of most European governments toward their foreign obligations is to withhold repayment of their debts to the United States and to

[1] Early in March when French exchange reached its lowest point below $.0350, France received credit reported to have been $100,000,000 from a New York banking syndicate in order to support the rate. As a result, the franc rapidly improved and by early May was currently quoted in New York at about 6.50. Although the franc is still under the influence of strong speculation interests, whose operations were mainly responsible for the recent sharp movements of franc exchange, there are signs that the French government is anxious not to have a further advance and that stabilization of the rate is desired near its present quotation. The recent exemption of the income of Treasury Bills from taxation is calculated to revive their popularity with French investors and to discourage their redemption.

Great Britain. Even if they were to agree to repay them, payments of interest and principal would be spread over a long period of time and the initial payments would be comparatively small.

One may, therefore, safely assume that if stabilization of the exchanges were to take place in countries of the second group it would be at a point somewhere near the New York quotation. Stabilization at a higher point is unlikely, for it would further increase the financial burden of the governments, which, even at the present quotation of the various exchanges, is extremely heavy. Statements, therefore, of various government officials that their government will never agree to a devaluation of the currency must be accepted with considerable allowance and as intended merely for "domestic consumption" in order to induce the population to subscribe to new domestic loans. This attitude of most governments, however, will have the effect that stabilization of currency and exchanges in many countries of Europe will be only gradual and not the sudden result of some international conference.

From the above discussion one may therefore draw the following conclusions: (1) that the amount of notes in circulation in countries of the second group is not likely to decrease in the near future. If a change takes place it will be rather toward inflation than deflation; (2) a substantial rise in the exchange rates of those countries is not likely to take place, and if their exchanges are stabilized it will be at a point somewhere near the present quotation in New York.

An analysis of the present gold situation in the countries of this group further proves the above conclusions. A comparison between notes outstanding and gold in the above countries is very difficult, for many uncertain factors must be included, such as the future of the gold held abroad, which the various central banks of issue still count as part of their gold reserves. Table II analyzing the gold situation in France and Italy may serve as an example illustrating the general relation of notes to gold in the second group of countries.

This table merely indicates that the relation between gold and notes outstanding, if the latter are reduced to gold on the

basis of New York exchange rates, is favorable. It must, however, be kept in mind that the value of the franc is much greater at home than abroad. The value of the franc abroad at the end of 1923 was about 4½ cents as compared with about 7 cents at home in terms of wholesale commodity prices, and about 8 or 9 cents in terms of retail commodity prices. If stabilization is effected, it is

TABLE II

RELATION OF GOLD TO NOTES OUTSTANDING

End of	I. Notes in Circulation in Millions	II. Gold Value of Notes in Circulation in Millions	III. Gold at Home in Millions	Gold Ratio III to I Per Cent	Gold Ratio III to II Per Cent	IV. Total Gold in Millions	Gold Ratio IV to I Per Cent	Gold Ratio IV to II Per Cent
	France							
1913.....	5,714	5,714	3,508	61	61	3,508	61	61
1922.....	36,359	15,434	3,671	10	24	3,535	15	36
1923.....	37,905.4	10,210	3,676	10	36	5,540	15	54
	Italy							
1913.....	2,782	2,782	1,493	54	54	1,493	54	54
1922.....	20,561	5,064	1,137	6	22	1,715	8	34
1923.....	16,725	3,758	1,128	6	23	1,722	9	35

quite likely that prices will advance and that before long the external and internal value of the franc will be more nearly brought together. For this reason the value of notes outstanding was measured in terms of dollars and not in terms of cost of living. (The situation in Italy and other countries is very similar.) Since, as shown above, notes outstanding cannot be substantially decreased and exchange rates are not likely to rise materially, one may safely state that the principal countries of this group have sufficient gold reserves and are in no need of additional gold for the restoration of their currencies to a sound, stable basis.

However, it must not be implied from the above statement that some or all of the countries of this group will soon return to the gold standard. One of the most important requisites of the gold standard is the free exchange of paper notes for gold. This depends not only upon the existence of an adequate gold stock but also upon the general economic and political stability

of the country. The latter factor, however, is at the present time such as not to warrant an early return to free specie payments. Even if currencies were completely stabilized and the par of exchange altered, it would be inadvisable to put gold in circulation. The remembrance of currency depreciation and of the high value of gold as measured in paper currency is still too fresh in the minds of the people in these countries, and would undoubtedly lead to hoarding of gold on a large scale.

Third group.—The third group of countries is characterized by a huge increase of notes in circulation which in some cases has reached prodigious and almost incredible figures. Almost all countries of this group suffer from large budget deficits which are met almost exclusively by the issue of paper notes, usually followed by a decline of exchange rates and an increase in prices, which in turn causes a further increase in the amount of notes outstanding.

Austria.—Austria at present is an exception, for since the successful floating of the League of Nations loan, the government deficit and the unfavorable balance of payments have been met by the proceeds of this loan and kronen exchange has remained stable since the autumn of 1922. The dollar measured in Austrian kronen increased from 3,000 kronen on January, 1922, to 75,000 kronen, or 2400 per cent at the end of June. The depreciation of the krone was followed by an increase in prices and wages, and a larger deficit of the budget, which in turn necessitated an increase in the amount of notes outstanding. Notes in circulation in fact increased from 227,000,000,000 kronen in January, 1922, to 550,000,000,000 or 142 per cent at the end of June. After the currency was stabilized prices increased only slowly, wages remained stable, business became dull, and the deficit of the budget decreased. Under these circumstances, it was to be expected that the amount of notes in circulation would either remain stable or decrease. Yet just the opposite took place. Notes outstanding increased more rapidly than during any previous period and rose from 786,000,000,000 at the end of July, 1922, to 4,080,000,000,000 at the end of December, 1922, an increase of 419 per cent.

This increase of notes outstanding since September, 1922, is due to the following two factors:

1. *Decrease in velocity of circulation.*—Before Austrian exchange was stabilized, especially during the first nine months of 1922, the krone depreciated very rapidly, and the flight from the krone assumed an unprecedented character. Holders of kronen exchanged them as rapidly as possible for anything likely to prove more stable. Bank deposits decreased and the total amount of notes outstanding was all the time in actual circulation. Under such circumstances money changed hands very rapidly and each unit of currency was used to make more numerous payments than in countries with stable currencies. The moment Austrian exchange was stabilized the flight from the krone ceased almost entirely. Demand as well as savings deposits increased very rapidly, stimulated by high interest rates. Banks and business houses which formerly disposed of their kronen holdings as fast as possible were now eager to increase their kronen reserves. Consequently, the velocity of the circulation decreased and assumed a normal character. A general shortage of money set in, for the purchasing power of the money in circulation was not sufficient to satisfy the needs of industry and trade, and to meet the great money stringency new notes were isued largely on the basis of commercial bills.

2. *Discontinued use of foreign exchange.*—So long as the currency was depreciating payments for practically all larger transactions were made in foreign exchanges. Furthermore, a large number of bank notes of countries with stable currencies were hoarded. After the exchange was stabilized it proved more profitable to carry out all transactions in kronen, for they fluctuated much less than any other currency in Europe. As a result a large number of foreign bills, which were formerly hoarded or held by banks, were handed over to the Austrian National Bank in exchange for kronen. This partly explains the large increase of foreign bills held by the Austrian National Bank on the strength of which the bank issued new notes.

At the end of 1922, most of the foreign bills held by Austrians were already exchanged for kronen, business houses and banks

had accumulated sufficient kronen reserves, and the demand for notes decreased. In fact, since the beginning of 1923, notes outstanding increased only from 4,110,000,000,000 kronen in January, to 5,684,000,000,000 kronen at the end of July, or 38 per cent, and this increase is due largely to the improved business conditions which set in early in 1923 (partly as the result of the occupation of the Ruhr).

Germany and Russia.—In other countries of the third group where the currency was not stabilized, budgetary deficits, currency inflation, and depreciation have steadily increased and reached a state where paper money is refused even in domestic trade and where all transactions of any importance are carried out either on a gold or dollar basis. In these countries currency reform has become a very urgent problem and various attempts have been made by the governments to meet the situation.

The most important question that arose was the deficit of the budget which was the main source of currency inflation. The measures put in operation by Russia and Germany are almost diametrically opposite.

In Russia the new bank of issue, the Russian State Bank, was authorized to issue gold notes (chervontsi) representing a value of ten gold rubles solely to meet the needs of industry and commerce, but not to furnish funds to the government. The bank is largely independent of the government and may advance funds to the latter only against gold or short-term securities payable in gold. Bank notes must be secured up to at least one-fourth by gold or stable foreign exchanges, while the remainder of the cover consists of readily marketable goods, short-term bills of exchange, or certain specified securities.

The deficit of the budget is met by the issue of paper rubles which are steadily depreciating. As the amount of rubles reached a fantastic sum, the government, on November 3, 1921, created a new type of ruble, the 1922 issue, the value of which was made equal to 10,000 rubles of earlier issues. On October 24, 1922, the 1923 issue was created which is equal to 100 rubles of the 1922 issue or to one million rubles issued before 1922.

Russia has thus two types of notes in circulation, the state bank note, which is used in almost all transactions of importance, and the amount of which is steadily increasing; and paper rubles, whose use as well as the total value, is steadily decreasing. On the first of October, 1923, total money in circulation amounted to about 297,001,000 gold rubles, of which about 207,359,000 were bank notes and about 89,652,000 paper rubles. Whether or not the state bank notes will ultimately supplant the paper ruble depends largely upon the financial situation and policy of the Soviet government. Should the Russian government be able to balance its budget or to meet the deficit by borrowing, the printing of paper rubles will become unnecessary.[1]

In Germany a quite different procedure was pursued. The new bank of issue, the Rentenbank, although intended to create a stable currency, has, as one of its most important aims, the task of providing the government with funds to meet the huge deficits of the budget. Of the 3,200,000,000 Rentenmark to be issued by the Rentenbank, 1,200,000,000 will be advanced to the government to redeem its treasury notes discounted with the Reichsbank and to meet the deficits of the budget during the next two years. The capital of the bank is 3,200,000,000 Rentenmark, which is raised half by mortgages to the value of 4 per cent of the capital value of agricultural lands and half on security given in the form of mortgages or bonds by industrial, commercial, and banking enterprises. On the strength of these

[1] During February, 1924, Russia undertook another important step toward the stabilization of her currency. On February 15, the issue of new paper rubles was prohibited and they will be withdrawn from circulation at the rate of 50,000 paper rubles of 1923 issue to one gold ruble. The Soviet authorities decided to issue new state currency of a denomination of 1, 3, and 5 gold rubles, which are freely exchangeable for chervontsi and are legal tender, and on February 26 silver and copper coins were put into circulation. The total amount of state notes outstanding may not surpass one-half of the amount of chervontsi outstanding. The withdrawal of paper rubles from circulation will not affect to any large extent the supply of money of Russia, for according to the Commissariat of Finance, the total circulation in Russia on February 25, 1924, amounted to 360,000,000 gold rubles of which only 10 per cent represents the value of the outstanding paper rubles. The success of the new reform, of course, will depend upon the extent to which Russia will be able to balance her budget or to meet the deficit by loan operations.

mortgaged values, the bank has issued 5 per cent mortgage bonds, in gold marks, serving as security for the new notes (Rentenmark) which the bank may issue up to the amount of its capital. The new currency has thus no direct relation to gold; indirectly, however, some relation exists in that 500 Rentenmark may be converted into 5 per cent gold mortgage bonds of an equal par value. The new currency, therefore, is liable to fluctuate and depreciate. It does not provide the business world with a stable currency and it is practically useless in international payments. It must, therefore, be regarded as an intermediate step toward the return to a currency on the gold basis. In fact, the establishment of a new bank of issue on a gold basis is one of the most important features of the "Dawes Report."[1]

Analysis of the gold situation in countries of the third group is more complicated, for the great economic and political changes that took place in Central and Eastern Europe make a comparison with pre-war conditions impossible. It may, however, be stated that despite the various attempts in Germany and in other countries to supplant gold by some other commodity, rye, wheat, etc., the position of gold as a basis for currency is at

[1] Gold Discount Bank.—Since the Rentenmark is merely a domestic currency and does not serve as an international medium of payment, the German Parliament on March 13 passed a law creating a gold discount bank. The main purpose of the bank is to temporarily remedy the shortage of credit in Germany with the aid of foreign credits and to provide the country with a currency acceptable abroad. The bank is established with private capital and is under the direction of the Reichsbank.

The capital of the bank is £10,000,000, one-half of which is subscribed for by a German bank syndicate, the other half by the Reichsbank which receives for that purpose a loan of £5,000,000 from an English syndicate. Arrangements have already been made with banks abroad which will rediscount sterling and dollar commercial bills discounted with the bank. The bank may also issue notes up to £5,000,000 covered up to 50 per cent in gold or foreign exchanges. The notes are not legal tender and are regarded merely as a means of international payment. With all its resources, the financial activity of the bank will be about £22,500,000 or 450,000,000 gold marks.

The charter of the bank is for 10 years and may be revoked at an earlier date by the Reichsbank, and during this period must not be granted to any new bank. Both the Rentenbank and the gold discount bank are to be merged with the new bank of issue provided for in the Dawes report.

present as unshaken as ever before. The question therefore arises, "What is the present gold situation in countries of the third group, and to what extent are they in need of additional gold?"

The popular view that countries in Central and Eastern Europe are in need of additional gold seems to be erroneous. What Germany or some of the newly created countries with disorganized currencies need, is not gold to be held as cover for notes outstanding, but credits abroad, especially in New York and London, with which to protect and support their currencies abroad whenever this may become necessary. This operation is greatly facilitated by the fact that the exchange quotations of most highly depreciated currencies are almost exclusively the result of the demand for high-valued exchanges from nationals of the respective countries, and the only effective way to counteract a decline is by offering such bills on the market.

The almost complete stabilization of the Austrian krone is the best proof of this statement. The "League of Nations Loan" did not increase the gold stock of the Austrian National Bank, but provided it with a sufficient amount of foreign exchanges in the form of gold credits in the principal money markets of the world which are used to meet Austria's unfavorable balance of payments. These credits abroad did not bring about a movement of gold from one country to another but enabled Austria to throw foreign bills of exchange on the market in order to regulate the demand and supply of kronen exchange.

Gold merely held in the vaults of any central bank of issue is of no use or very little use in the restoration or stabilization of a currency, and so long as this gold is kept at home inactive, it has no effect on the exchange rates. It has merely a psychological value for future use. The best proof of this statement is the present exchange situation in Spain. The Bank of Spain at the end of December, 1923, had in its vaults 2,528,000,000 pesetas gold against 4,338,000,000 pesetas of bank notes outstanding, or a gold cover of about 61 per cent, the highest in Europe. Despite this fact, the value of the peseta during 1923 was steadily decreasing and at the end of December, 1923, was

quoted in New York at 13.47 cents or about 30 per cent below par. In countries with disturbed exchanges the influence of gold becomes effective only when gold is thrown on the market to absorb the supply of local currency or to meet the demand for foreign exchange. Thus, if under present conditions gold were to be shipped from the United States to the countries under consideration to restore their currencies, this gold would soon be either returned to the United States or hoarded in the respective countries.

This process of borrowing funds abroad or of keeping funds in the leading money markets for the support of the exchange rate need not necessarily be drawn out for a long time, even in the case of countries with an unfavorable balance of payments. As soon as the currency is stabilized funds seeking profitable employment are usually invested in countries with high interest rates (provided the safety is such as to induce foreign investors to place their funds in the respective countries). The case of Austria again is a good proof of this statement. Austrian exchange was stabilized in August, 1922, and since that time it has continued as one of the most stable currencies in Europe. Since September 4, 1922, the discount rate of the Austrian National Bank has been 9 per cent as compared with $4\frac{1}{2}$ to $5\frac{1}{2}$ per cent in Czechoslovakia and 4 per cent in Switzerland. With the beginning of 1923, short-term as well as long-term funds of adjoining as well as other countries began to flow to Austria to be invested in the Vienna money market. Thus, while up to the middle of 1922 the Austrian government had to pass laws prohibiting the flight of capital from Austria (the laws were of little use), a stabilized currency and settled economic and political conditions combined with high interest rates not only stopped the flight of capital but actually caused an inflow of funds into Austria.

The example of Austria indicates how a redistribution of gold accumulated in the United States may eventually take place. It cannot be affected so long as the currencies are disorganized and political conditions remain unsettled. The moment, however, a change in this regard occurs, high interest

rates of countries in need of gold will be the greatest inducement for capital (gold) to flow from the United States or other countries to these respective countries. The discount policy of the various central banks of issue, including that of the Federal Reserve banks, will therefore be one of the greatest factors in bringing about a redistribution of gold.

The restoration of the currencies of most continental European countries thus would, at least during the next few years, amount to the introduction of the gold-exchange standard, which practically means the adoption of a careful foreign-exchange policy with the view of supporting the respective exchanges in the foreign financial centers. This, in turn, will tend to enhance the importance of bills of exchange of countries on a gold basis. To what extent this has already taken place can best be seen from the fact that in all European countries where a currency reform has taken place, e.g., Germany, Russia, Latvia, etc., foreign-exchange bills on countries with a stable currency basis and near the gold point are counted as part of the gold reserves. That dollar bills occupy the first place goes without saying.

Countries with a gold-exchange standard, however, need only little gold at home, for this standard does not presuppose either resumption of specie payments or free gold movements. These countries are in need of foreign credits which in the form of bills of exchange can easily be thrown on the market to protect the exchanges. The operation of the Devisencentrale of the Austro-Hungarian Bank before the war is one of the best examples of how a currency may be kept completely stable within the gold points without specie payments or a free gold market.

MARCUS NADLER

WASHINGTON, D.C.

REPORT ON AN EXPERIMENT IN TEACHING METHOD

The problem of education has often appeared to the writer as the problem of the proper release of energy in the student. That is why a school of commerce may be justified in concerning itself about the question of educational method. Because however much business success may depend upon the acquisition of certain useful and necessary information, success is unthinkable without a corresponding development in the student of the capacity to make use of the facts he has so well learned, and to organize his information with the accomplishment of some definite objective in view. So that schools of business should teach not only business facts, but also methods that will be of value in manipulating new information. For it is notorious of current business information that the knowledge of today is the history of tomorrow, and the young graduate who completes his work in college or university with a static notion of business practice has yet to begin his education.

What has been said of the undergraduate instruction of business students cannot be said with the same definiteness of undergraduate instruction in economics, since students who study economics do so from a variety of motives. Yet it is probably not far from the truth to say that the methods now in general use in undergraduate courses do little to develop initiative on the part of the student but rather invite an attitude of dependence and acquiescence. The combined effort of teacher and student too often results in "forging a hammer which the student is powerless to wield."

But teaching the student method, and training him in the use of it, is only one way of releasing energy in him. Perhaps, since he works so largely with printed materials, it is the most useful service we can perform for him. If he continues on into research work after he graduates it is the kind of training to

which he should give most of his time. But it is reasonable to expect that most graduates from schools of commerce and business administration will actually follow a business career. And men in business are typically organizers of effort rather than organizers of facts or information. It is true that they act upon information, or are supposed to, and so should be judges and interpreters of its worth. But essentially men in business are men of action directing all their energies and the energies of those about them to the achievement of some goal. To what extent do our methods of instruction help to develop in the student the capacity for organizing effort, any other effort than his own?

In seeking for an explanation of the conservatism of the teaching profession on the side of method, one must look back to a former age when methods of instruction were rigid and formal, and doubts were quieted by the voice of authority rather than by the encouragement of original research. This tradition of conservatism has persisted to the extent that while the curriculum of study has been largely modified, and the scientific method revolutionized instruction in the physical sciences, the typical teacher is still at heart much of a dogmatist, and instinctively resists any effort to weaken his privilege of speaking *ex cathedra* to his students.

It is neither to be expected nor desired that the teacher will surrender the enormous prestige he has inherited from the past. But we cannot effectively prepare young people for a life of effort, the intense and long-continued sort of effort which modern life demands, by relying exclusively upon a method of instruction which emphasizes, so far as the student is concerned, passive receptiveness. But neither should the teacher expect to unload upon the student the whole burden of organizing his own effort. May it not be, however, that a way may be found to preserve the dignity and prestige of the teacher without frightening the student away from the notion that he, too, has some intellectual equipment which would improve with use. Furthermore, may it not be possible to compel the student to carry part of the burden of his own instruction without the teacher's surrender-

ing that general direction of study which is the proper prerogative of the instructor.

The student is just as much a product of tradition as the teacher. Accustomed as he is to "taking notes," he views with distrust any effort to shift upon him duties which he conceives are best performed by his instructor. And then there is so much "ground to be covered" in a given length of time, so many "required courses" and "grade points" necessary for a "degree" before one can be "graduated." These formal requirements of our large-scale educational plants must be met, and the student cannot be blamed if he insists that any new experiments should not conflict with the carrying out of a program which is not optional with him and in the preparation of which he has had little part.

The fact still remains that, in the light of the demands of the world of affairs into which the student will go, we are doing him an injustice. We are emphasizing subject-matter at the expense of developing in the student qualities which will enable him to organize facts for himself. We are leaving untapped, sources of energy which, if properly released, would increase in the student those powers of initiative, co-operativeness, and leadership which stand him in such good stead in the battle of modern life. We should use our course material as a training ground upon which to develop these qualities. The discovery of a new technique should not be left to the haphazard will of the individual instructor; there should be organized experiments in the effort to develop more effective teaching methods. Departments of education and psychology will be able to give their expert counsel. The experience of other schools should be sought out. The effort should be consciously organized effort.

To give point to the preceding discussion, a report is given of an experiment in teaching method which was carried through at the School of Commerce and Administration of the University of Chicago in the Spring Quarter of 1923. The course was one of intermediate grade taken by Sophomores. By "intermediate" is meant a required course which follows an elementary general

discussion of the problems of business administration given in the Freshman year. The intermediate course is followed by an advanced course which deals in a technical way with the administration of risk. The intermediate course in Risk and Risk-Bearing is concerned with the phenomena of risk in present-day economic society, a description of risk-bearing institutions, and discussion of their functions.

The class of 115 students was made up as follows: ninety-nine School of Commerce Sophomores, two Art students, twelve School of Commerce graduate students, and two other graduate students. One hundred nine took the course as a required course, six as elective.

Preliminary to the opening of the course, a meeting of instructors was held at which a plan of presenting material and of dividing up instruction was discussed. The material of the course was divided into five major units upon each of which it was planned to spend a period of approximately two weeks. Each unit (Study Unit I) was elaborated by the addition of special study topics which should be assigned to small groups of students organized into reading and discussion groups under faculty direction. The general outline of the course and plan of the first study unit are given as typical of the organization of material.

RISK AND RISK-BEARING

OUTLINE OF THE COURSE

I. *A type study* of the effect of risk on business—the business cycle and cycle forecasting
   1. The theory of the business cycle
      a) Description of cycle
      b) Causes of cycle
   2. Forecasting the business cycle
      a) The mechanical method
      b) The logical method or "forecasting" by "economic analysis"

II. *A type study* of the assumption of risk in order to obtain a profit—speculation and investment
   1. Speculation in securities
   2. Investment in securities
   3. Speculation in commodities

III. *A type study* of the transfer of risk to an institution—life insurance

IV. *A type study* of the transfer of risk to an institution—property insurance

V. The social implications and consequences of risk

STUDY UNIT I

THE BUSINESS CYCLE AND CYCLE FORECASTING

Special Topics for Squad Study

I. Banking Policy and the Business Cycle (topic for two groups)

Reed, *Development of Federal Reserve Policy*, chaps. xiv–xvi
Sprague, *Crises Under the National Banking Act* (National Monetary Commission)
Moulton, *Readings in Money and Banking*, pp. 147–96
Moulton, *Financial Organization of Society*, chaps. xxiii, xxv–xxvi
Agger, E.E., *Organized Banking*, chaps. xii–xiv
Laughlin, *Banking Progress*, chaps. iv, vii, x, xi
Kemmerer, *The Operation of the Federal Reserve Act*
Friday, *Wages, Profits and Prices*

See also articles in:

Journal of Political Economy
American Economic Review
Quarterly Journal of Economics
Federal Reserve Bulletin

II. The Business Cycle and Financial Administration (topic for one group)

Lincoln, *Applied Business Finance*
Shaw, *Financing a Business*, chaps. xiii–xvii
Wall, *Credit Barometrics*
McKinsey and Meech, *Controlling the Finances of a Business*
Blanton, *Credit, Its Principles and Practices*, chaps. iv–v
Shaw, *Credits and Collections*, chap. xii
Eltinger and Galieb, *Credits and Collections*, pp. 2–4, 84–5, 184–5, 310–11.
Hardy and Meech, *The Manager's Administration of Finance*, chaps. ii, xii, and Pamphlet No. 1, *Recent Tendencies in Corporation Finance* (Keister)

See also

Administration
Harvard Business Review

III. The Cycle of 1914–1922 (topic for two groups)

Mitchell, *History of Prices During the War* (War Industries Board)
Clark, Hamilton, and Moulton, *Readings in War Economics*, chaps. xxv, xl–xlvi, xlviii, l, lii–lv
Friday, *Wages, Profits, and Prices*
Bass and Moulton, *America and the Balance Sheet of Europe*

See also

Commercial and Financial Chronicle
Bank reviews
Federal Reserve Bulletin
Journal of Political Economy
Quarterly Journal of Economics
American Economic Review
Annals of American Academy
Magazine of Wall Street

IV. The Business Cycle and Market Administration (topic for one group)

Twyford, *Storing*, pp. 17–19
Rindfoos, *Purchasing*, pp. 14–18 and p. 25
Hysell, *The Science of Purchasing*, chap. ix
Dinsmore, *Purchasing Principles and Practices*, chap. ii
Clark, *Principles of Marketing*, pp. 99–110
Converse, *Marketing Methods and Policies*, chaps. v, ix, xiii–xiv, xxi, xxii.
Duncan, *Marketing Problems and Methods*, pp. 456–62.
Alexander Hamilton course, *Marketing and Merchandising*, pp. 200–202, 310–13

See also

Printer's Ink—articles on price policies

V. The Business Cycle and the Worker (topic for one group)

Hitchcock, *The Worker in our Economic Society*, chap. v
Beveridge, *Unemployment*
Bureau of Economic Research, Volume on Unemployment
Gantt, *Work, Wages and Profits*, chap. xi
Gleason, *What the Workers Want*, pp. 327–29.
Friday, *Wages, Profits and Prices*

VI. The Relation of Money and Credit to Prices and the Business Cycle (topic for two groups)

Fisher, *See works listed in collateral readings*
Phillips, *Readings in Money and Banking*, chap. xi
Laughlin, *Principles of Money*, pp. 110–16, 129–39, chaps. vi–ix
Anderson, *Value of Money*, Part II to and including chap. xvi
Friday, *Wages, Profits and Prices*

See also

Periodicals in collateral list and the works of the following:

Fetter	Davenport	Cliff-Leslie
Seligman	Hadley	Pierson
Taussig	Bohm-Bawerk	Hamilton
Smith	Ricardo	Panteleoni
Mill	Sidgewick	Ely

VII. The Present Condition and Probable Future Trend of American Business Conditions (topic for two groups)

See forecasting services and periodicals in collateral reading list.

VIII. Critical Analysis of the Leading Forecasting Services from the Business Executive's Viewpoint (topic for two groups)

Two section instructors were charged with the organization of this material and the general conduct of the course. They were to hold two meetings a week, meeting in three sections for general discussion, and in these section meetings the method of teaching was to be very similar to the discussion method in general use. Four additional squad instructors were assigned the direction of a small number of squads, the number of squads assigned to any single instructor ranging from two to six. To clarify the above general description, the plan of organization of instruction is set forth in detail:

ORGANIZATION OF INSTRUCTION

A. Section instruction

Two section instructors: (One of these instructors had direction of one large and one small section, a total of about 80 students. He also had charge of one squad of five students. The second section instructor had direction of one section of 35 students and of three squads.)

1. *Duties of section instructors:* The instructor of the section is responsible for the presentation and final organization of course material; for the organization of his section into squads; for the assignment and approval of topics of investigation by squads; for posting of references and reservation of books, etc., for informing squad instructors of personnel of squads assigned to them and the study topics chosen by the squad; for all section meetings; and for the assignment and grading of all written and oral work.
2. *Reports by section instructor:* The section instructor is responsible for all reports to the Bureau of Records including absence reports, flunk notices, and final grades. Section instructor will report to the Dean's Office at the end of the quarter:
   a) Number of students held back for second presentation of material.
   b) Number of students whose final organization of material is unsatisfactory. Names of these students should also be given to squad instructors.
   c) Number of flunk notices sent.
   d) Copy of all grades given, with absence record.
   e) Opinions and Recommendations about the course.

B. Squad instruction

Four squad instructors: Instructor No. 1, six squads; Instructor No. 2, four squads; Instructor No. 3, five squads; Instructor No. 4, four squads.

1. *Standard of squad instruction:*

The squad shall meet regularly twice a week with the squad instructor, time and place of meeting may be adjusted by the squad instructor with the members of the squad in the interests of efficiency in the work. The burden of organizing discussion rests principally upon the squad leader. The members of the squad should do most of the talking. Squad meetings are not recitations. They are designed to promote discussion about doubtful or controversial points. Meetings should not be given over to the development of factual material. Facts should be used as a basis for expression of opinion.

The squad instructor should observe weaknesses in organization in the work and of discussion rather than furnish the squad with a method of his own. Squad meetings should not become an agency through which the students lean upon instructors. The instructor should answer questions sparingly. Discussion of study topics should not become too narrow in its scope. The squad instructor should interpose himself to lead the discussion into related fields of study and thus give the students an insight into the relation of the risk subject to the curriculum as a whole.

The atmosphere of squad instruction should be informal and friendly, but should not degenerate into gossip or conversation about the universe in general. The squad instructor should invite criticism of the method of study, and observe to what extent present methods are failing or succeeding.

The squad instructor divides with the section instructor the responsibility for reporting on the character and ability of the members of the squad. Therefore he should form his own best opinion of the work being done by the members of the squad as squad leaders and as students co-operating with the squad leader. When necessary he should recommend to the instructor of the section that flunk notices be sent and give reasons. He should also be in a position to rate the student at the end of the quarter for personality and grade of work done in the squad.

2. *Reports by squad instructor:*

a) The squad instructor will forward to the Dean's Office at the end of each unit of work all reports of squad leaders.

b) At the end of each week the squad instructor will report to the section instructor the number of absences for the week. At the

regularly stated time he may also recommend to the section instructor that flunk notices be sent and give reasons.

c) At the end of the quarter the squad instructor will report to the Dean's Office
   (1) The number of meetings held with each squad and the average time of meeting.
   (2) The number of flunk notices recommended to the instructor of the section.
   (3) A regular grade for each member of the squad.
   (4) A Graphic Rating Card for each student.
   (5) At least once during the quarter, an informal personnel report on each student.

C. Squad Organization and Performance

1. Immediately after the first meeting of the section, the squads shall organize and choose a squad leader and study topic for investigation in the first Unit of Study. The squad leader will retain his position until the Unit of Study is completed, when a new squad leader shall be chosen by the squad. The squad leader will report the organization of the squad and choice of topic to the section instructor for approval. Unless otherwise instructed, the squad shall meet for the first time with the squad instructor after the formal presentation of the Unit of Study by the section instructor.

   In the interval between the completion of squad organization and the first meeting of the squad, it shall be the duty of the squad leader to inspect the readings bearing upon the study topic assigned for investigation and assign to each member of the squad a quota of reading to be done in preparation for the first meeting. He may call the squad together for at least one meeting a week when no instructor is present. He shall be responsible for making all reports to the squad instructor.

   The members of the squad should co-operate with the squad leader in attending all meetings, in doing the necessary reading, and in taking part in discussion in the squad meetings.

2. Reports by squad leader and members of the squad: At the end of each Unit of Study, each member of the squad will report to the squad leader the amount and kind of reading done, the amount of written and oral work, and the approximate numbers of hours spent on preparation outside of the section and squad meetings.

   The squad leader will summarize and pass on to the squad instructor the reports of members of the squad. He may also make a special report to the squad instructor concerning the method of study, library facilities, squad meetings, etc. At the end of the quarter each member of the squad will rate every other member on the Graphic Rating Card and turn the card in to the squad instructor.

At the opening meeting of the course it was announced that the sections of approximately thirty students each would organize themselves into squads of five each, choose a student leader, a faculty squad instructor, and study topic, and meet the following day in the class for the presentation of the first study unit. Schedules of rooms and available hours had been posted, and on the second day squad organization was completed. The section instructors then presented in the sections in general outline, but very clearly and definitely, the subject to be studied for the ensuing two weeks. This presentation occupied twenty minutes, at the end of which time the students were required to write back what they had heard. This exercise took the place of the usual "opening lecture," its purpose being to fix in the student's mind a clear notion of what he was going to undertake. If his written response was unsatisfactory, he was required to report a second time to the class instructor and repeat the exercise before meeting with his squad.[1]

Preparatory to the first squad meeting, the student squad leader made a rapid survey of the amount of reading to be done by his squad and when the first meeting of the squad took place he assigned the readings to the different members for the ensuing two weeks. There was thus a little time lost at this first meeting in starting discussion on the study topic. This was not true of subsequent meetings.

This small-group meeting was the characteristic feature of the experiment. The groups met in small rooms with chairs pulled up about a table in the most informal manner possible. The technique of handling this new situation had to be guessed at and felt out. Especially difficult was the rôle of the faculty representative or squad instructor. A brief quotation from a

[1] This method of instruction was formulated by Professor H. C. Morrison, superintendent of the Laboratory Schools of the University of Chicago School of Education. As applied to the social studies it provides for teaching large units, so that the more detailed materials are selected and learned in order to understand a definite topic or problem. A study of each large unit or problem occupies approximately four weeks and requires a five-step procedure: Exploration, Presentation, Assimilation, Organization, and Recitation.—Quoted from an article on "Experimental Curriculum-Making in the Social Studies" by J. Montgomery Gambrill, the *Historical Outlook*, XIV, 388.

memorandum sent to squad instructors will show the attempt to keep them in the background of the squad meeting.

The following is designed to give certain general suggestions concerning the handling of squad meetings. Obviously we cannot formulate our full technique in advance. We must experiment.

1. The students should do most of the talking. A good motto for the squad instructor would be "keep your mouth shut."

2. Squad meetings are not recitations. They are designed to promote wrangling and to develop discussion around differences of opinion.

3. Squad meetings should not be given over to the development of factual material. Facts will have to be discussed by the squad meeting; but it is not a fact gathering affair.

4. Section Instructors Keister and Meech must give all squad instructors full warning in advance what major topics will be discussed at the two full meetings of the class. Squad meetings can not entirely avoid this material; indeed, they may sometimes expand upon it. They should not, however, cover the same territory and the way to prevent that is to have Keister and Meech warn all others in advance what will be discussed in the full class meetings.

5. Squad meetings should be an occasion for tying this course up with other courses and an occasion for letting the students see the plan of the curriculum as a whole.

6. Squad meetings should not become an agency through which the students lean upon instructors.

7. Squad meetings should not become occasions for footless gossip or for conversations about the universe in general.

In the first four weeks of the course during which this policy was generally maintained it was about as difficult for the squad instructor to exercise restraint as for the student squad leader to take the initiative and lead discussion. The strangeness of this new position in which the student was placed had a varied effect upon him. In some instances it put him upon his mettle to exert extra effort to carry the load. With others the effect was to confuse and frighten, with still others, discouragement and helplessness. Reading schedules were heavy, too heavy for testing out a new method, and squad discussions resolved themselves too often into individual reports upon assigned readings. The fifty-minute period was too brief for carrying out the program which had been planned and there was much evidence of general dissatisfaction among the students during this first part of the

course due principally to the fact that assignments were too heavy.

At the end of each two weeks' period a new unit of work and study topic were taken up and a new student squad leader was chosen. In this way every member of the squad acted as leader for two weeks. Each member of the squad was required to hand to the student leader a report of his work for the two weeks, and the student leader assembled these in a report which he in turn made to the squad instructor. These reports contained routine information of reading done, meetings held, etc., but were not seldom enlivened by criticism and suggestion which were made the subject for discussion in the meeting of instructors held each week.

In the section meeting a general examination was held at the end of each two weeks' period upon the general subject of study during that period. The student was asked to write in class during the hour a critical discussion and summing up of the reading and discussion of the past two weeks. No definite questions were asked. A single question such as: "Discuss the phenomena of the business cycle distinguishing the different phases of the cycle," was used in one examination. The purpose of this type of examination was to test the general grasp of the student upon the subject-matter as a whole, and to test also his ability to organize his information into a coherent account. The results on the whole were inconclusive. Instructors were divided in their opinion as to whether the examination was an adequate test since there was no way of determining whether a specific piece of required reading had been done. Students were also about evenly divided in their opinions, thirty-nine declaring this type of examination better than the customary type, thirty-two preferring the customary type.

An excerpt from the report of one of the squad instructors will serve to summarize the experiences of the first half of the course.

> The experience of the first four weeks has shown the following:
>
> 1. We have had brought home to us the attitude of the majority of the students in regard to their instruction—in regard to what they think

they want. They are used to having material handed out to them, and they have no very impelling inclination to dig it out and organize it for themselves. The fact that this attitude, this frame of mind, has been brought into clearer relief is one result of the plan, even though it be a negative one.

2. The students have obtained something from the fact that they have been compelled to organize their material, in spite of the attitude of the majority on this matter. These results vary greatly according to personnel of the squad and capability of the leader in a particular unit. In two of my squads they seem to have gained considerable in working out their topics—more than the students realize, I believe—but in the other two, where the squad leaders have been very mediocre, the results have not been so happy. However, I don't believe we have gone far enough to say just to what extent this result has been obtained. Naturally, there was a good deal of fumbling during the first unit, and the second is hardly enough to judge by.

3. It should be said that the students have put in more time in organizing their material than they ordinarily put in on one course. Even allowing for a huge exaggeration in the reading reports, they have spent more time than they would have done under the orthodox method. Whether this extra time, if taken from other subjects, was worth while is another question. On this point, as on every point one must consider in reporting on the experiment, things are relative, and it is always a question whether a gain at one place has not been offset by a loss somewhere else.

4. It is possible to become much better acquainted with the individual student; to judge his work and rate him more intelligently. It is one of the results about which we can speak with a considerable degree of certainty.

5. Finally, as another negative result, the first four weeks have shown how essential it is, in an experiment of this sort, that the co-operation of the students be obtained. This point is obvious, but I believe the results have pointed so decidedly toward it that mention is worth while.

During the final six weeks of the course, the reading program was lightened by cutting out the special study topics and making a division of general subject-matter between the class and squad groups. Study Unit IV shows the modification of the plan as originally outlined.

STUDY UNIT IV

IV. Property insurance

Huebner, *Property Insurance* (revised edition) chaps. xi–xviii, xxxii.
Hardy, C. O., *Risk and Risk-Bearing*, chap. xiv.
Riegal and Loman, *Insurance Principles and Practices*, Parts IV and V.

Topics for Discussion:

I. Hazard and Loss
II. Policy Contracts
III. Rates and Rate-Making
IV. Organization of Companies
V. Finances of Fire Companies
VI. Miscellaneous Forms

This modification of the study unit had the effect of simplifying the task of the student leader and of individual students since it brought the range of discussion within narrower limits, all the members of the squad having read much the same material. The squad instructor also, who by force of circumstances had been drawn more and more into the squad discussion, was now urged to assert himself more actively in the general direction of squad meetings. The net result of these changes was increased coherence in squad discussion, a better tie-up of the work of the squad with that of the class, and a more comprehensive handling of subject-matter. It must be confessed, however, that in some instances squad meetings resolved themselves into miniature classes led by the instructor.

A word must be said of the reaction to this method of the instructor conducting the section meeting. He was at all times pressed for time, the number of class meetings having been cut from four to two per week. He was forced to deal with only the large general aspects of his problem, trusting to the students to fill in detail from their reading and group discussions. If particular points were not cleared up in this way, he had no recourse. Naturally he was skeptical of the merits of such a method and with some justice. It is easily practicable to put the section instructor in entire control of this situation, however, by allowing him to meet small groups composed of the members of his own section.

Before giving any general estimate of the value of the method used, one or two further special features deserve attention. One class meeting in each two weeks was reserved for oral reports on topics discussed in squad meetings. Some of these reports were excellent, but more of them reflected the inability

of the average undergraduate to present orally what he could very well reduce to writing. It seems a defect of our business

GRAPHIC RATING CARD Name of student_____

Judge the student in each quality, independently of all other qualities. Indicate your rating in each quality by placing an "X" on the line, at a point that approximately reports the student's standing.

1. Intelligence	Keen thorough thinker	Alert; good judgment	Fair understanding; common sense	Learns poorly; unsound thinker	Dull; poor judgment
2. Industry	Exceptionally industrious	Steady hard worker	Fairly industrious	Takes things easy	Lazy
3. Accuracy	Extremely accurate and careful	High degree of accuracy	Moderately accurate	Inexact; somewhat careless	Slovenly
4. Co-operativeness	Unusually willing co-operation	Good team-worker	Fairly co-operative	Difficult to work with	Trouble-maker; antagonistic
5. Initiative	Creative Aggressive Original	Constructively energetic	Moderately independent	Lacks originality or aggressiveness	Routine worker; passive
6. Moral Trustworthiness	Merits complete confidence	Recognized as trustworthy	Fairly reliable	Doubtful reliability	Untrustworthy
7. Leadership Ability	Capable, forceful, winning; "born leader"	Fairly effective leader	Indifferent	Fails to gain confidence	Submissive antagonizing or repellent

(OBVERSE)

Do you consider this student exceptionally well fitted for any one of the following lines of work?

Persuading people_____ Executive, planning_____

Teaching _____ Executive, handling men_____

Analytical work (research)_____

In oral English, is the student { exceptionally good?_____ / exceptionally poor?_____

In written English, is the student { exceptionally good?_____ / exceptionally poor?_____

Remarks (additional notes concerning the student):

Rated by_____ Date_____

(REVERSE)

training that the technique of oral presentation is given little or no attention.

At the end of the course students in the squads were asked to rate each other for the qualities listed on the standard graphic

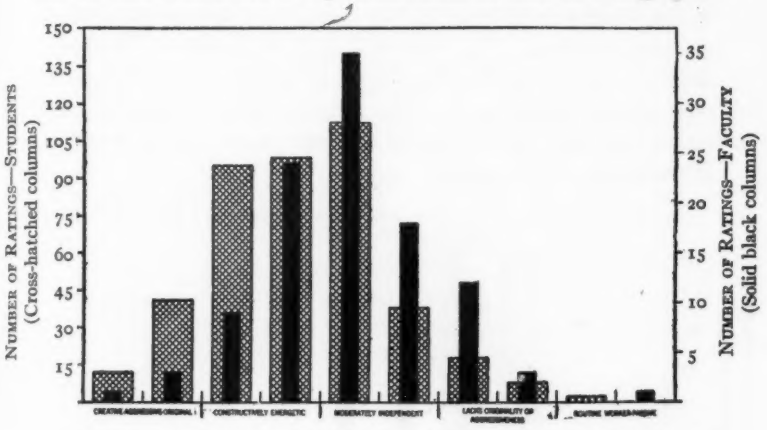

FIG. 1.—Comparison of student and faculty ratings of students for initiative.

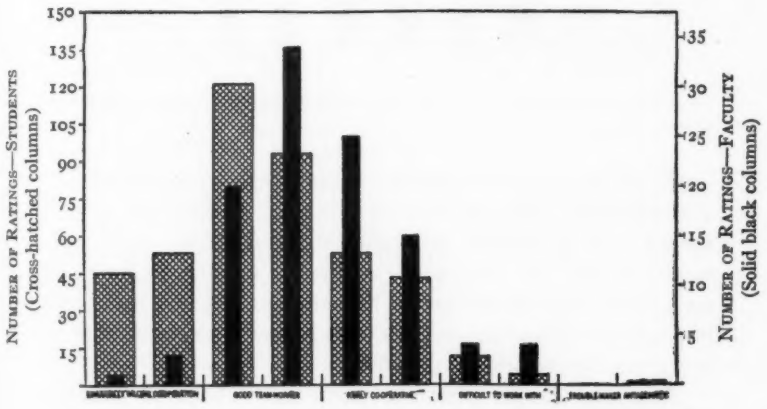

FIG. 2.—Comparison of student and faculty ratings of students for co-operativeness.

rating card used by instructors in the School of Commerce and Administration in rating students in classes. Squad instructors

also rated the students in their squads. Considerable interest was manifested in this exercise and a general comparison of student ratings and of instructor ratings is given in the accompanying diagrams. The three qualities of Initiative, Co-operativeness, and Leadership are chosen as being most significant in view of the method used. The roughly similar trends of both ratings and the tendency of the students to rate higher than the instructors is worth noting.

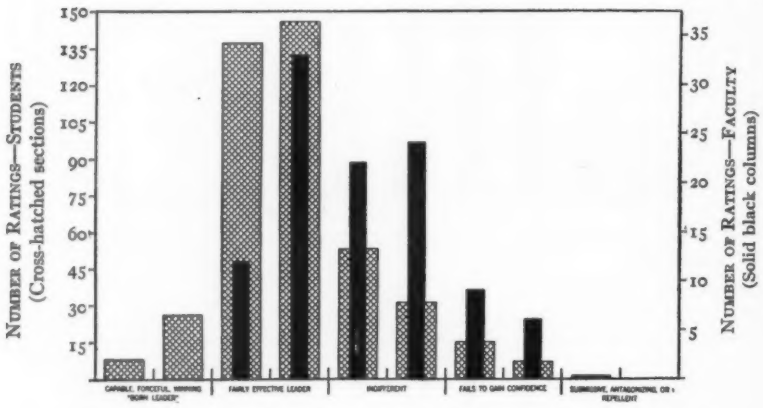

FIG. 3.—Comparison of student and faculty ratings of students for leadership ability.

In addition to these graphic rating cards, squad instructors also wrote out informal personal estimates of students in their squads. These records are sufficient proof, if no other were available, that the small group method is superior to the usual method of class instruction in bringing student and instructor into such a relation that a much more accurate personal estimate of the one by the other is possible.

As a final exercise, students were asked to write out answers to a questionnaire on the method of instruction used.

QUESTIONNAIRE FOR POLITICAL ECONOMY 7

1. In what division of the University are you registered?
2. Did you take Political Economy 7 as a required or as an elective course?

3. If the course was taken as an elective, what was your purpose in taking it?
4. If the course was required, what were your expectations as to the subject matter that would be covered in it?
5. To what extent did the subject-matter as actually dealt with in course 7 come up to or exceed your expectations?
6. Make a brief comment on the organization of subject-matter during the first half of the course (first two units of work) touching on such points as:
   a) Amount
   b) Difficulty
   c) Utility
   d) Character of reference material
   e) Availability of reference material
7. Make a brief comment on the organization of subject-matter during the second half of the course, touching upon points as:
   a) Amount
   b) Difficulty
   c) Utility
   d) Character of reference material
   e) Availability of reference material
8. What are the respective obligations of instructor and student in an intermediate course, i.e., what should the instructor be responsible for and what may properly be expected of the student?
9. Would your answer to question 8 apply to Political Economy 3 as well as to Political Economy 7? If not, indicate qualifications.
10. In what respects did the method of instruction used in Political Economy 7 succeed or fail in measuring up to your idea of instruction as given in your answers to questions 8 and 9.
11. Comparing the method used in Political Economy 7 with the usual method of course instruction, what specifically is lost by using the group method? What specifically is gained?
12. How might the method be improved upon to better adapt it for intermediate instruction?
13. To what extent was the size and personnel of the squad a factor in determining the success or failure of group instruction?
14. What part should the instructor play in the squad meetings?
15. What is the value of floor talks as a part of course instruction?
16. What is the educational value of the "preview" and writing back exercise at the beginning of a unit of work?
17. How does the type of examination used on the first two units of work compare with the old type of examination?
18. Do you think you have talked more in the squad meetings than you would have under the orthodox method of class instruction?

19. Using a percentage basis, rate the importance of the following possible causes for the failure of squad meetings to function:
   a) Lack of time to cover ground
   b) Poor leadership
   c) Lack of confidence in instruction
   d) Poor co-operation on part of students
   e) Newness of the method
   f) Other causes. Explain.
20. Should greater initiative be placed upon the individual student in undergraduate work? If your answer is "Yes," how may it be obtained?

The answers to this questionnaire were compiled and many of them showed the result of serious thinking by the student upon the problem of teaching method. The evidence is ample that students are sensitive to the methods the instructor is using and keenly critical of results.[1]

It should be clear at this point that any change of instructional method must be accompanied by a reorganization of subject-matter to adapt it to the proposed method of presentation. Under

[1] *Answer to question 8.* What are the respective obligations of instructor and student in an intermediate course, i.e., what should the instructor be responsible for and what may properly be expected of the student?

An intermediate course should be a "half and half" course; that is, the instructor should assume part of the responsibility of seeing that the student does his work; and the student should assume the other part of the responsibility. The student should not be confined to the limits of an instructor's assignment; but neither should he be left to his own resources entirely. As the word "intermediate" implies, such a course should be a step between the orthodox method of teaching and the method employed in graduate courses. There should be a happy blending of the two methods. The student is too advanced to undergo the tortures of the question-answer method; but still he is not far enough advanced to dig in and get his work without some pushing and checking on the part of the instructor.

10. In what respects did the method of instruction used in Political Economy 7 succeed or fail in measuring up to your idea of instruction as given in your answers to questions 8 and 9?

The methods of instruction used in Political Economy 7 came about half-way in measuring up to my ideas of instruction as given in my answer to question 8. I would criticize the method in two respects: (1) the student was not given enough responsibility and (2) the student was given too much responsibility. Which may sound paradoxical—but it isn't. The student was not given enough responsibility in the squad work. In the case of our squad, at least, the instructor monopolized the time with his own ideas and suggestions. There was very little free discussion and original research. In the second place, the student was given too much responsibility in the class work. It seemed to be taken for granted that he

a method which is designed to test student initiative, the assignment of problems becomes more significant than the assignment of chapters or pages. The emphasis is shifted from "ground covering" to mind training and power of organization. Subject-matter tends to break up under this method into relatively fewer and larger logical units disregarding the conveniences of chapter divisions. As a prerequisite to success with such a method, then, the material of the course should be organized definitely with the method of instruction in mind. The consequences of this fact become very far-reaching when it is recalled how many of our courses are arranged for topical presentation in lecture form.

A second important corollary to any adoption of the group method is the development of a technique of instruction among the teaching staff. The small group calls for a distinct type of instructor who is in sympathy with the method and who has the right kind of personality to mix freely with young people. He must have a broader training than the average and he must at the same time be expert enough in the special subject of instruction to win confidence and inspire to effort. He must know

---

did the reading and accumulated the necessary information. The intermittent questioning and the too few examinations were not a sufficient check upon the student's performance.

20. Should greater initiative be placed upon the individual student in undergraduate work? If your answer is "yes," how may it be obtained?

"Should greater initiative be placed upon the individual student in undergraduate work?" This question is one which has puzzled and still is puzzling the educational world. And it puzzles me also. My answer is "Yes," but I don't exactly know why. This initiative should be placed intelligently, conservatively, and gradually. And it may be obtained by intelligently, conservatively and gradually enlarging the scope and activity of the undergraduate. But you'll have to check up on him. Ninety per cent of the undergraduates would not put forth their best efforts, I venture to say, if no check was put upon their results. This is not a reflection on the undergraduate, it is a reflection on his environment. You can't make a fish play tennis; neither can you change an undergraduate overnight. He is embedded in a mesh of habits and customs and his release must necessarily be a slow and cautious one.

Political Economy 7 as it was taught this quarter took too great a jump from the orthodox. But with some few revisions, it has possibilities.—*Excerpt from student questionnaire.*

when to talk and when to keep still and at all times must be patient, tolerant, and kind. Men who are willing to give so generously of themselves are rare on university faculties today. They find that greater rewards accrue to those who engage in research and who grudgingly give up to students only those hours which they spend with them in the classroom. Of course there can be no sharp line drawn between research men and teachers. No teacher can safely interpret who has not at some time undergone the pains and joys of investigation and discovery. And certainly the necessity for making his results intelligible guides and tempers the labors of the research worker. But in the interests of a better handling of our man power and our woman power in the university, this special type of teacher should be developed and the ranks kept from depletion by appropriate rewards.

On the basis of so small an experience it is hardly possible to make a positive statement about the merits or demerits of the particular type of instruction described in this paper. Indeed, the writer holds no brief for any single method of instruction, but it would seem that the small group method, used under favorable circumstances, has real possibilities. It does provide a situation in which the student can demonstrate his capacities for leadership and teamwork as well as his capacity for industry. It makes it possible for him to talk more on a level with his instructor. It invites a clash of opinion under more informal circumstances than in the ordinary classroom. It is exacting in its demands upon the instructor but it gives him a better opportunity to know his students and to exert an influence upon them. It is time-consuming and wasteful if not properly managed, but if in the process of digging for material, of working through it, and getting command of it, of being able to present his views, and defending himself against attack—if in this process the student gets command of *himself*, the work of instruction is done and done well, even though some facts may have been overlooked and some time consumed.

The real question at issue, however, is not the merits or demerits of any particular method of instruction; the issue has

already been outlined in the introductory paragraphs of this article; namely, whether the principal object of a university education should be to impart knowledge, or to develop in the student qualities which will enable him to discover and organize facts for himself. This issue may be restated in terms of any particular course. The particular method to be used and the proper place and time to use that method are matters for experiment. It may well be questioned whether the method just described should be used with junior college students. In reply to the query "Whether greater initiative should be placed upon the individual student in undergraduate work," of the 83 making reply, 52 said "yes," 31 said "no." The one thing that seems conclusive is that at some time or other before the student leaves the university he should be made to feel that he has power of initiative, and that he has capacities for teamwork and leadership in some degree. Having done that, it is then the chief business of a university system of instruction to bring each student up to the highest level of his achievement.

EDWARD A. DUDDY

UNIVERSITY OF CHICAGO

THE SINGLE-TAX COMPLEX ANALYZED

As Mrs. O'Flanagan was on her way home from a review of the regiment of which her son was a member, she overtook her neighbor. "Faith," said Mrs. O'Flanagan, "and Oi'm proud of me Terence. Whin the byes came marchin' by in a long straight line, ivery man in the regiment was out of step except Terence."

And, in truth, did she not have a right to be proud? Here was Terence honoring his family name by upholding the correct standards despite the carelessness of all his comrades. Not dissimilar is the situation in the regiment of economists today. Almost all of them find it hard to keep step in the march of progress because they are fettered by a peculiar kind of class prejudice; in other words, they are afflicted with the "single-tax complex." "Perhaps not more than two or three" freely follow the path of truth wherever it may lead. One of this small but discriminating group is Dr. Harry Gunnison Brown, a man who received his degree from a famous eastern school and who is now connected with one of the great universities of the Mississippi Valley. In the April, 1924, number of the *Journal of Political Economy*, he points out in some detail the symptoms characterizing the "single-tax complex." Necessarily, of course, he is hampered by lack of first-hand knowledge, since he has never suffered from the disease. It is in the hope of aiding him and his fellow-workers in their study of the phenomenon in question that I offer the following notes on the mental experiences of one who, truth compels me to admit, suffers from the "complex" in its most virulent form. The severity of his case is well illustrated by the fact that he actually believes that it would be more conducive to the general welfare to exempt all land from taxation than to tax away its full economic rent.

It goes without saying that, in psychopathic cases of this nature, the testimony of the patient is not to be taken at face value. Nevertheless, psychoanalysts in general appear to agree that the diagnosis of the malady is greatly facilitated if the patient can be induced to talk freely about his case. Obviously, a correct understanding of the psychosis makes it much easier to effect a cure. This particular case is so far advanced that it is doubtful that even the skill of the greatest physician will prove of much avail; but, nevertheless, a

statement of the facts as they are may be of some service to Dr. Brown in his endeavor to lift economic science to a higher plane.

Before describing in detail the symptoms in the case just mentioned, it may perhaps be worth while to digress for a moment and mention an observation made by the present writer—an observation of a peculiar fact, namely, that, as a rule, economists suffering from this "complex" are likely at the same time to be obsessed with antipathies toward other ideas almost entirely unrelated to the single tax. Most of these economists look askance, for example, at the protective tariff, at government subsidies, at currency inflation, and at unlimited immigration. Just why all of these "complexes" are so commonly associated in the same individual at the same time is a question which perhaps is worthy of investigation by Dr. Brown and his associates, because of the possibility that such a study might in some way throw light on the main issue.

But, after all, these accompanying manifestations may prove, upon closer study, to be entirely without significance. Let us, therefore, for the moment, concentrate our attention upon the symptoms of the patient previously mentioned.

One of these symptoms has been a tendency to advance in a most vigorous fashion just such ill-grounded arguments against the single tax as Dr. Brown has cited in the *Journal* as fallacious. After reading Dr. Brown's article, however, the patient's symptoms subsided somewhat and he freely admitted the erroneous nature of certain of his beliefs—as, for example, the idea that the exemption of buildings and improvements from taxation, even if the period of exemption is only for a few decades, will not serve to stimulate building; and also the impression that the single tax was once tried in France and was abandoned because it failed. It is to be hoped that at least these two particular delusions have been completely and permanently eradicated by Dr. Brown's logic.

Unfortunately, however, there are other warped ideas which tend to persist despite the detailed way in which the errors which they contain have been confuted. For example, the patient suffers from a hallucination almost identical with the one which Dr. Brown ascribes to Professor Seligman (and one which, by the way, apparently affects many other economists), namely, that, in practice, it might not be easy for the average assessor to differentiate between the true rent of the bare land and the rent of the improvements made thereon by the present or past owners of the land. His peculiar contention is that

the assessor would not be able to ascertain the amount invested a hundred or two years ago in clearing the land from timber and stones. He fears also that the assessor might not remember to count in with the other expenses for improvements the taxes or other contributions made by the owners to the community to enable it to build roads to the land, to construct drainage ditches, or to erect schools and churches, all of which improvements are commonly admitted to affect greatly the present value of the land. He also keeps asking whether the assessor would find it easy in his computations to make corrections for the changing value of money so that all investments would be brought into terms of dollars of current date? Another thing that troubles him is how the assessor would determine the interest rate on the investment to be used in his computations and how he could prove that the rate chosen was the logical one to select.

The patient, like most mental cases, is unreasonable and continually complains that Dr. Brown fails to keep in mind the fact that the single tax proposes to tax away the full economic rent and is not concerned with a tax on any kind of land values or increases in land value. Is it not possible that the patient's return to a normal mental status might be hastened if Dr. Brown would humor him by being so meticulous as to confine the term "single tax" exclusively to Henry George's proposal to take the whole economic rent for the state?

The patient is also irritated because Dr. Brown fails to admit the obvious fact that a house or factory is, as Professor Merlin Hunter points out, just as truly a product of nature as a product of labor.

Although, in the heat of the argument, Dr. Brown has seemed to place himself in this untenable position, it is absurd to suppose that he really is in any doubt about the truth of the matter. Would it not be wise, in order to strengthen his influence with the patient, to show that his real position has been misunderstood and that what he really wished to point out was that if the single tax were put into full operation, the entire fraction of the land value attributable to nature would have been already paid to the state in taxes. The patient could scarcely fail to see that this would constitute a good and sufficient reason for not taxing this share again when it became embodied in the house. One should not feel that the foregoing minor criticisms are intended as indictments of Dr. Brown's presentation of the facts. On the other hand, most of his statements are so clear and forceful that the mere fact of failing to comprehend the theses set forth seems to reflect upon the intelligence of the reader. Probably, for example,

no writer has exposed more pitilessly and completely the "vested rights" delusion so prevalent among economists. His statement, though admirable in its present form, might be made even stronger if he would take time to explain the origin of this widespread malady. May it not well be that this particular hallucination has its source in the fact that all of these economists have been brought up under a régime of private property, and, of course, property is by its very nature nothing but a bundle of "vested rights." Furthermore, they have been accustomed to a world in which contracts enforceable by all the power of the state are constantly giving rise to new "vested rights." They have recently seen most of the civilized world in arms against the doctrine that contracts are mere "scraps of paper." With such a historical background, it is not hard to see how this prejudice in favor of "vested rights" has become so common. As a matter of fact, it is a sad commentary on our civilization that not only the economists, but almost the entire population, with the exception of the communists and anarchists, seem to be seriously infected with it. Even some single taxers are not wholly free from this bias, for they affirm strongly that the worker ought to be given a clear title, in other words a "vested right" to the product of his toil. Under these circumstances, lamentable as the fact may be, it does not seem surprising that economists, as well as single taxers, have succumbed to the prejudices by which they are surrounded. Many have even been led to contend that that very essence of "vested rights"—the institution of private property—has proved to be distinctly advantageous to society in general.

Again I am going to take the liberty of making a suggestion to Dr. Brown. Might it not be easier to eradicate this error from the minds of economists if he, as the teacher, took the clear-cut position that all "vested rights," all private property, all contracts, ought forthwith to be abolished? Is there not grave danger that, as long as he admits that there are real advantages in the institution of private property, that *certain* "vested rights" are sacred, he may have difficulty in convincing the victims of "the single-tax complex" that the "vested right" to hold land is not as sacred as any other? Are they not likely foolishly to contend that a few types of private property, such as life insurance, bonds, savings banks deposits, mortgages on real estate, and land, have been generally commended to trustees, to the working classes, and to widows and orphans as ideal conservative investments? Has it not been instilled into the minds of the people from childhood

up that the man who saves and invests his savings in such property is a citizen worthy of emulation and that, on the contrary, the thriftless man who does not accumulate such "vested rights" is an object for scorn, derision, or contempt? With such instruction, is it any wonder that the average man is grounded in the erroneous belief that it is to the advantage of society that the state keep faith with those whom it (and society in general) has strongly encouraged to invest in land, just as much as with those that have similarly been induced to put their savings into bonds or life insurance?

Would it not be easier for Dr. Brown to remove the malign "complex" from the minds of the economists were he to point out more clearly why it is socially desirable for the state to discriminate against the investors in lands rather than against the investors in life insurance? He justifies the forfeiture of investments in land by showing that the state has virtually confiscated investments in breweries and distilleries and has commonly interfered with the business operations of monopolies. Now someone has called attention to the fact that for a century or two it has been commonly understood that monopolies are inherently dangerous to the interests of citizens outside of the monopoly, and that, therefore, he who undertakes to form a monopoly does so with the full knowledge that the government is going to keep him under surveillance and restrict his liberty of action as long as he continues to exercise monopoly power. In several states this idea has been embodied in the constitution, and monopolies are prohibited on the ground that they are inimical to the general welfare. Similarly, the manufacture and sale of liquor has, for two or three generations, been held by the United States Supreme Court to be contrary to the public interest—and hence not entitled to the rights or privileges of legitimate business. The courts universally recognized, therefore, that the liquor trade was being permitted to exist only under sufferance. Has land ownership been likewise under the public ban? All the evidence shows that the reverse is true, that this particular type of property has been generally considered to belong in the preferred class of extra desirable and conservative investments, and hence to be entitled to an unusual degree of protection.

Now Henry George took the position that every member of the human race inherited a natural and equal right in the land and that any interference with this right must necessarily be nefarious. Of course, a *natural* right is much like the "*vested*" right, the perniciousness of

which Dr. Brown has pointed out. Furthermore, the doctrine of natural rights has, during recent years, received pretty rough handling by most students of the subject. But is it not true, nevertheless, that Dr. Brown would strengthen his position by sticking firmly to the doctrine of natural rights? By assuming these rights to be "natural" he would place them safely above the realm of controversy and thus establish himself once for all. When, however, the natural rights doctrine is thrown into the discard, it becomes necessary to show a logical reason for discriminating against property rights in land as compared to property rights in other goods. Dr. Brown, probably because of lack of space, has failed to present any logical reason for punishing the investor in land and rewarding the investor in houses. He has failed to show any especial reason why the income of the one should be taxed 100 per cent for the benefit of the state, while the income of the other is taxed only 10 or 20 per cent. Of course, all agree that the state has a right to take any kind of action that is socially desirable. But, is it not worth while for Dr. Brown to explain in what way such discrimination benefits society? The patient whose symptoms I have been describing believes that confiscation of any legitimate type of property discourages thrift by leading everyone to fear that his own turn to forfeit his total savings will come next. Most of the deluded "complexees" are in dire need of enlightenment upon this point.

Dr. Brown should be thanked for bringing out one of the great advantages of the single tax, namely that, by reducing land values to zero, it will enable the poor man to acquire title to land as easily as he did before the frontier faded away. True, a captious critic might assert that while he would pay nothing for the title he would also get nothing of value; that he would be a mere tenant of the state; that it is unnecessary, under the present system, to pay anything for the privilege of becoming a tenant under equally favorable conditions; and that it still costs little to acquire a title to no-rent land in almost any section of the country. But these criticisms are all beside the point.

Dr. Brown's psychoanalysis has brought to light some interesting phases of the "single-tax complex." Strangely enough, it often affects one part of the brain of its victims in one manner while another part is affected in an almost opposite way.

We observe, for example, that some of the afflicted economists, although they abhor the single tax, are rather attracted to another

phase of Henry Georgeism, namely, the seizure of "unearned increment." Of course, if past as well as future "unearned increment" were seized, the results would parallel the single tax, but these economists often favor seizing only future "unearned increment." Presumably, most of them would agree that the investor must be allowed interest on his investment before calculating the "unearned increment" in which case Dr. Brown's numerical illustration appears to be inapplicable, and it becomes difficult to prove that such a tax would lower materially the present value of the land.

There is reason to hope that an analysis of the symptoms in the severe case of "complexitis" which I have been describing will aid Dr. Brown much more in analyzing the nature of the psychosis than will a study of the behavior of those economists who fail to have prejudices of the purest and most undiluted type. This particular victim believes that taxes on either past or present "unearned increment" are wholly undesirable. "Unearned increment" is merely another name for speculative profits. He has never been able to find any logical reason for taxing away such chance gains unless the state reciprocated by compensating the speculator for chance losses.

But this is not all. His prejudice is so intense that his mind has never been penetrated by the logic of the single taxers sufficiently to make him see any advantage in increasing the tax burden on land. He only observes that land imposes less trouble on the state than most kinds of property. It is not easily stolen and rarely burns up; hence it requires a minimum of fire and police protection. It is difficult to conceal and hence rarely evades taxation. His mind is so warped that these seem to constitute better arguments for taxing other property heavily and land lightly than the reverse.

But even this is not all. Dr. Brown points out that, "without the single tax, the landless must continue to pay owners for the privilege of living on and working on their land." The patient described distinguishes so poorly between ideas that he thinks it just as desirable to get rid also of other inconvenient burdens. He contends that today the houseless have to pay owners for the privilege of living in houses; the automobileless are compelled either to walk or hire taxicabs. He wishes to know why we cannot abolish these evils likewise. He also asks these puzzling questions: "Why, when we have recovered our ownership of the land, shall we not retrieve our rights to these other things as well? Why is one man compelled to walk while others ride by in Rolls-Royces?" The whole system seems to him to be rank injustice.

He further complains that on top of all this, he is compelled to pay taxes on the products of his toil. He says that if the single tax will help him to escape taxes, he is for it. But he suggests a perfectly ridiculous substitute which he contends has the merit of being surer and more direct. He is in favor of a constitutional amendment forbidding any person to change his or her surname, and forever exempting from taxation all persons whose surnames begin with K (which happens to be his initial). Despite all arguments, he still insists that this is even better than the single tax. The greatest concession that he could be induced to make, even after reading Dr. Brown's paper, was to say that he would not object to including the B's as well as the K's in the exempt class.

There is a peculiar story which the patient persists in repeating over and over again which I quote here in the hope that it may throw light on the nature of the psychosis. He states that in a certain village with which he is familiar there are about a hundred families of somewhat equal wealth who all own their homes. It costs $4,000 a year to run the village school and each family must pay about $40 a year in taxes to cover the cost. Part of this money is levied on the land and part on the houses and furniture. Now he contends that if the tax were all shifted to the land, as Henry George says it ought to be, Dr. Brown would tell us that the entire product of the labor of the inhabitants would be as free and untrammeled as the desert air. But the thing that the patient harps on is that the salaried man owning a house and lot must pay $40 a year out of his salary. He desires to know how the burden can be placed upon the land so that the salaried man can have his salary—the product of his toil—unburdened by taxes, just as Henry George says that justice demands, and yet keep the school as well supported as formerly.

There is one ray of light in the blackness surrounding the mental condition of the patient which may mean that there is still hope of his rehabilitation. He says that he sees clearly the rank injustice of allowing to exist in a free country a medium which promises to the speculator a sure return—an "unearned increment." The patient is in general opposed to monopoly and in addition it is probable that he has a personal grievance for he continually asserts that someone has monopolized the formula for making easy money on land. He says that a man once gave him a tip as to how it was done but that the information proved false, for when, following directions, he bought the land, it failed to rise in value rapidly enough even to pay interest on his investment. He further says that several of his friends have

had similar bad luck. I am sure that nothing will be more effective in hastening the patient's recovery than for Dr. Brown to point out just how the speculators go at it to get the "unearned increment" and not incur equally "unearned" losses. The patient asserts that when this point is cleared up in his mind he will be in favor of having the state seize the nefarious gains of the speculators.

It is a matter of common observation that lunatics usually consider that they alone of all the world are sane. This peculiar tendency to assign one's own mental weakness to others doubtless accounts for a peculiar delusion to which the patient under discussion, along with many other victims of the "single-tax complex," is subject. He is obsessed with the idea that the single taxers are not merely advocates of an economic policy but that they are a religious cult and that their intense devotion to their creed has little connection with logic or reasoning. The very fact that the sufferers from "complexitis" are subject to such a hallucination furnishes a strong indication, to say the least, that the malady is closely related to the better-known types of mental derangements, and hence should require somewhat similar treatment.

As I have no knowledge of the proper treatment of brain disorders, I can do nothing more than describe the more striking symptoms which have come under my observation. If this description aids, even in the least degree, in assisting Dr. Brown and his associates to eliminate, or even to lessen the intensity of this psychopathic condition among economists, I shall feel highly gratified that I have been privileged to contribute in even a small way to such a desirable end.

WILLFORD I. KING

NEW YORK CITY

BOOK REVIEWS AND NOTICES

Rural Organization. By WALTER BURR. New York: The Macmillan Co., 1921. Pp. xi+250. $2.25.

This is an interesting attempt to view the rural community as an organic unit which performs definite economic and social functions through various formal and informal types of institutions. After some preliminary, in which this point of view is stated and some hint given of the national scope and relationship of typical forms of rural organization, the author proceeds to treat in detail of community functions.

These functions are distinguished as economic and social, although the author recognizes that there is no clear line of demarcation between the two ideas. The economic functions are: *Farm production, marketing, securing supplies, finance, communication and transportation.* The social functions are: *Education, sanitation and health, recreation, beautification* and *home-making.* After stating in the case of each function the need for organization, and affirming the community nature of the problem, the author presents briefly the story of successful organization projects and concludes each chapter with a list of questions and research problems for the convenience of the student.

The full implications of the functional analysis are not realized in the author's presentation. True, the likening of the community to a living organism functioning in a variety of ways does give a point of departure for such an analysis, but how did the organism come to have its present form? What forces operating in the past have determined its present functioning? Are these forces permanent or can they be changed and directed by setting up new motives and new machinery of organization? What are the motives which make for social-mindedness? Is it safe to assume the existence of these motives while proposing a plan of organization which cannot function without them?

Again, while the need for organization may be apparent, and the desired objective clear, it does not follow that setting up the mechanisms will be easy or will solve the problem after they are set up. The writer overemphasizes the community nature of some of his functions.

The function of farm production, for example, will always depend for its successful operation to a very large degree upon the particular location of the farm with reference to topography, soil, etc., and upon the individual capacity of the manager. The more highly organized community action becomes, the greater becomes the responsibility of each individual. No amount of communal organization can relieve the individual of responsibility for the solution of difficulties which are peculiar to his own condition. This point the author does not ignore, but its importance merits more prominence than is given to it in the discussion.

Functions are interacting, and one who makes use of the functional analysis lays upon himself the heavy burden of showing how different forms of activity interact upon each other to bring about certain effects. Functions are something more than pegs upon which to hang chapters. The very convenience of the device hides the real difficulty in using the method.

Finally, the functional analysis connotes completeness. One might differ with the writer as to the inclusiveness of the terms he uses to describe his functions, but quibbling over terminology is a barren pursuit. There is only one important omission from the list which needs comment. The social organism grows; it goes forward or backward. Admitting this, we must at once admit the need of a function of measurement, so that we may determine in which direction the organism is moving or developing. This measurement must be in terms of standards; there is a function of measurement in terms of social standards. It may be objected that this function is already operating in terms of all the other functions, but so is each and every function operating through all the others. The setting up of such a function furnishes the basis upon which any truly scientific study of social progress can be made.

The worker in the field of rural organization will find this book useful and stimulating. It sketches in outline a method which may easily be amplified and adapted to practical uses. While the writer does not plough deep, he is gifted with good common sense and his judgments are characterized by a tone of fairness and moderation which is often absent from writings upon similar subjects.

E. A. DUDDY

UNIVERSITY OF CHICAGO

The Trend of History. Origins of Twentieth Century Problems. By WILLIAM K. WALLACE. New York: The Macmillan Company, 1922. Pp. xix+372. $3.50.

This book calls for a title indicating that it represents an attempt to construct the theory of the successive forms assumed by the European state since the Middle Age. Far from being a study in the philosophy of history, as the reader might be fairly led to believe, it is an illuminating and comprehensive treatise in political science carefully based on the evidence in the case. The rich historical material is handled with keen analysis, the standpoint is consistently lofty and detached. The main phases of the European state since the failure, in the fourteenth century, of ecclesiastical control are defined by the author as follows: a politico-theistic phase, a politico-juridical phase, and a nationalist phase. While his politico-theistic phase corresponds to what we currently conceive of as royal absolutism, the two ensuing phases are identical with successive stages in the historical development of what we commonly refer to as constitutionalism. Except for the fresh terminology there is therefore nothing particularly novel in the author's vision of the European evolution. And the respective rôles as well of England and France in shaping the constitutional development are not conceived otherwise than in the traditional presentations.

While concerned solely with the state, the author is at constant pains to show that he is aware that political changes do no more than register precedent changes in society, and that, more particularly, the whole constitutional epoch is naught else than a coming into consciousness and power of the great Middle Class. It is with the constitutional state that the bulk of the book is concerned, and the process is shown in detail how constitutionalism, born simultaneously with trade, reaches its climax shortly after the middle of the nineteenth century at the time of the unification of Italy and Germany and on the tidal wave of the industrial revolution.

Then, around 1870, a decline of the Middle Class and of its constitutional state sets in and it is here that we reach the most suggestive feature of the author's theme. Since social changes precede every organic transformation of the state, the question arises what these social changes, particularly operative after 1870, may have been. Mr. Wallace discovers them in the later developments of capitalism whereby the once solid Middle Class has been gradually disintegrated,

and in the concomitant rise of a class-conscious proletariat. Since 1870 the European state has therefore entered upon a new, a politico-economic phase, more or less identical with what the world has generally designated as imperialism. Disraeli in England and Bismarck in Germany are the leading historical champions of this transformation, but all the great powers are shown as readily falling in line, while even the small fry instinctively follow suit so far as they dare or can. In strict parallel to this imperialist transformation, which, according to the author, is still going on, the Middle Class state of the nineteenth century has tended to lose all of its most characteristic ear-marks. Its ancient juridical character, by virtue of which it was conceived as a juridical person bound by contractual obligations, has been sacrificed to the newer concept of the state as absolute, *the state as power;* the older, strictly nationalist basis has been gradually abandoned in favor of a non-nationalist or super-nationalist basis; and, finally, this altered state has seen its chief purpose in the scramble for economic benefits throughout the globe in utter freedom from the moral obligations associated with the Middle Class liberalism of 1850. However, as Middle Class control has, in spite of shocks, remained more or less intact, the unscrupulous procedure of the modern state has been decorously draped with a veil of deceptive verbiage, through which such bald seizures as those of Tunis or Egypt or any other backward area have been turned into their moral opposites and given the character of courageous assumptions of the White Man's burden.

The end is rather inconclusive. We may agree that the Middle Class state in its known, familiar form is passing because the Middle Class is itself slowly disintegrating. We may further accede to the view that the economic and super-nationalist inspiration of the absolute (imperialist) state is subtly connected with the rise of a mystically oriented proletariat. But what of the future? The author prefers to leave us in the dark except for the broadly conveyed hint that henceforth politics will count for less and less and economics for more and more in the direction of society. Perhaps a second volume will undertake to analyze the most recent developments. It is needed.

FERDINAND SCHEVILL

UNIVERSITY OF CHICAGO

Federal Subsidies to the States: A Study in American Administration. By AUSTIN F. MACDONALD. Philadelphia: University of Pennsylvania, 1923. Pp. 122.

This monograph, a University of Pennsylvania doctoral thesis, is the first comprehensive study of the legislative history and the methods of administration of the American federal subsidies to the states. The federal subsidy system has undergone marked development in recent years, and its utilization through the attachment of conditions to the grant of the subsidies, to purchase for the federal government powers of control over state legislation and administration which would otherwise lie outside the constitutional authority of Congress, has aroused considerable misgivings on the part of those who see in any increase in centralization of authority a menace to the fundamental principles which underlie, or are supposed to underlie, the American scheme of government. The student of the relations between federal and state finance will find a great deal of valuable information in this study. It makes, however, but a slight contribution to the formulation of principles. The author argues for uniformity in the distribution between the federal and the state governments of the burden of financing undertakings in which both have an interest, and criticizes the lack of uniformity in this matter between the various federal subsidies. What is the particular merit of uniformity here? A careful adjustment of the provisions of the subsidy acts to the fundamental political and economic conditions governing the particular undertakings which they help finance might well lead to diversity rather than uniformity. A careful study still remains to be made of the conditions which should be attached to the grants, especially with respect to the basis upon which the maximum amounts which the different states may receive from a given federal fund are determined. One of the strongest arguments made in support of the practice of the distribution of funds by a central to local governments to aid them in carrying out desirable activities is that this makes possible a closer territorial equalization of the financial burden than will result from purely local financing. But it can readily be demonstrated that the fifty-fifty method of distributing the federal subsidies, whereby the federal contribution matches the state contribution, may operate in practice to make a poverty-stricken district contribute through federal taxation to the financing of educational frills or luxury highways for wealthy states with the capacity and the will to pay the cost of such

undertakings from their own funds if necessary. On these and other matters of principle the author would have done well to have given considerable attention to the experience of the American commonwealths, which have had a much longer, more comprehensive, and more varied experience with the practice of conditional grants to subordinate political bodies than has the federal government. Neither the body of this study nor the bibliography offers any evidence that any attempt was made to profit from the extensive study which has been made, especially by students of educational finance, of the experience of state governments with such grants. In his references to foreign instances of the use of conditional grants the author overlooks the grants for highway construction made since the close of the war to the provincial governments by the Canadian federal government.

JACOB VINER

UNIVERSITY OF CHICAGO

Frederick W. Taylor, Father of Scientific Management. By FRANK BARKLEY COPLEY. New York: Harper & Bros., 1923. Vol. I, pp. xviii+466; Vol. II, pp. vii+472. $10.00.

The world owes a real debt of gratitude to the author of these volumes for the admirable way in which he has presented the life and work of the late F. W. Taylor. Few men outside of the political arena in this country have been so much discussed as the subject of this biography. Attacked as few men have been by his adversaries and as warmly supported by his adherents, it has been exceedingly difficult for an outsider to form a dispassionate opinion in regard to the real character and personality of the man and his work. There is no question that the author is very sympathetic with his subject, but his book conveys the impression that he has made every effort to be scrupulously fair and unbiased. He has not idealized his man, but has allowed the reader to see that he was distinctly human and had faults like everyone else. Altogether, simply as a biography, it is one of the best which has been prepared in recent years.

The first volume begins with a rather detailed exposition of Taylor's ancestry and surroundings as shedding not a little light on his later life and work. The major portion of the first volume, however, is devoted to Taylor's work at Midvale, the reasons why he started out in quest for what he later came to call "scientific management," his first steps in the study of the art of cutting metals, his work in the standardization of belting, and his first concepts of what he termed

"functional organization." It concludes with a presentation of Taylor's early experiences as a consulting engineer.

The second volume takes up Taylor's work at Bethlehem and discusses at some length the experiments which led up to the discovery of high-speed steel, and the significance of this discovery to the world at large. The last part of the book presents his later years, giving some delightful pictures of his home life and his hobbies, and outlines the efforts which he made to explain his ideas and methods to others.

The biographer has made very skilful use in both volumes of excerpts from Taylor's letters and manuscripts and in this way has allowed him to speak very largely for himself. This is especially desirable, as Taylor's published material, particularly that dealing with his concept of management, is not easy to understand unless carefully studied, and largely fails to explain the intellectual processes through which he reached his conclusions. He was not altogether successful, for this reason, in "selling" his ideas, and these volumes, drawing extensively as they do on his unpublished material, most of which he never intended for the public eye, supply these deficiencies in some measure.

To anyone who really wishes to understand the development of modern management, and the part which Taylor played in it, these volumes are essential, for they serve to explain many things which have heretofore not been clear to most people. They are a very real contribution to an adequate comprehension of one of the most important movements and of one of the most striking and remarkable personalities in American industrial history.

PAUL M. ATKINS

UNIVERSITY OF CHICAGO

Co-operative Banking. By ROY F. BERGENGREN. New York: The Macmillan Co., 1923. Pp. x+398. $3.00.

This book is a thorough study of the extraordinary growth of the American credit-union movement from its start in 1909 up to 1922 when 75,000 members had furnished resources of $12,000,000. Defining the credit union as "a bank in miniature," operated democratically to promote thrift and provide its members with credit facilities, the writer makes a case for this institution as a supplement to existing financial agencies. The origin of American credit unions in the Raiffeisen and Schulze-Delitzsch systems is indicated. The industrial movement is stated as centering in New York and New

England, while the rural movement is best developed in North Carolina.

In view of the almost exclusive treatment of the credit union, one is impressed by the inappropriateness of the title, *Co-operative Banking*. Surely co-operative banking has a possible scope greater than that of supplementing existing agencies by joining farmers or workers through self-interest to "help accumulate the dormant capital . . . . and put it to work." Indeed, co-operative banking, even if developed through the medium of the credit union, must inevitably come in conflict with our present banking system by the time $1,000,000,000 in deposits (which the writer has as the objective for credit union resources) is reached. The larger and much more vital problem of co-operative commercial banking is left almost untouched.

The book is considerably marred by the introduction of extraneous matter. It is, however, written in a popular style and will doubtless be of service in hastening the development of the credit union.

COLSTON E. WARNE

UNIVERSITY OF CHICAGO

The Bank of the State of Missouri. By JOHN RAY CABLE. Columbia University Studies in Political Science. Volume CII, No. 2. New York: Longmans, Green & Co., 1923. Pp. 231. $3.50.

Failures make so much better copy than facts of routine operation that the newspapers and other available materials have perhaps led the historian to understate the importance of certain conspicuous successes in the wildcat banking era. It is gratifying, therefore, to receive this narrative of a bank, much neglected by writers of this period, which "played a major rôle in the financial development of Missouri and of the whole Mississippi Valley" by setting up standards of sound and cautious methods. Here was an institution whose errors, if any, consisted in excessive conservatism rather than in excessive liberality. This bank should take its place with the state banks of Ohio and Indiana, the bond deposit institutions of New York, and the Suffolk bank in shedding rays of light in the dark age of American banking.

The author's research has been conducted in painstaking manner. No promising source of information seems to have been neglected. The fragmentary descriptions of the economic life of the Middle-Western people are incidentally valuable.

HAROLD L. REED

CORNELL UNIVERSITY